

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

FRACTUS, S.A.

Plaintiff,

V.

SAMSUNG ELECTRONICS CO., LTD., et
al.;

Defendants.

§ § § § § § § § § § § § § § § §

Civil Action No. 6:09-CV-203

JURY TRIAL DEMANDED

**DEFENDANT HTC AMERICA, INC.'S AMENDED ANSWER AND COUNTERCLAIM
TO PLAINTIFF'S SECOND AMENDED COMPLAINT**

Defendant HTC America, Inc. (“HTC America”) files this Amended Answer and Counterclaim (“Answer”) to the Second Amended Complaint (“Complaint”) for Patent Infringement filed by Fractus, S.A. (“Fractus”). Defendants deny any and all allegations of the Second Amended Complaint not specifically admitted herein. In addition to the Amended Answer and Counterclaim, HTC America asserts affirmative defenses, denying infringement of any valid and enforceable claim of U.S. Patent No. 7,015,868 (the “‘868 Patent”), U.S. Patent No. 7,123,208 (the “‘208 Patent), U.S. Patent No. 7,148,850 (the “‘850 Patent), U.S. Patent No. 7,202,822 (the “‘822 Patent), U.S. Patent No. 7,312,762 (the “‘762 Patent), U.S. Patent No. 7,394,432 (the “‘432 Patent), U.S. Patent No. 7,397,431 (the “‘431 Patent), U.S. Patent No. 7,411,556 (the “‘556 Patent), and U.S. Patent No. 7,528,782 (the “‘782 Patent).

THE PARTIES

1. HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 1 of the Second Amended Complaint, and therefore denies them.

2. The allegations of Paragraph 2 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 2 of the Second Amended Complaint, and therefore denies them.

3. The allegations of Paragraph 3 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 3 of the Second Amended Complaint, and therefore denies them.

4. The allegations of Paragraph 4 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 4 of the Second Amended Complaint, and therefore denies them.

5. The allegations of Paragraph 5 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 5 of the Second Amended Complaint, and therefore denies them.

6. The allegations of Paragraph 6 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to

the truth or falsity of the allegations set forth in Paragraph 6 of the Second Amended Complaint, and therefore denies them.

7. The allegations of Paragraph 7 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 7 of the Second Amended Complaint, and therefore denies them.

8. HTC America admits that it is incorporated and existing under the laws of the State of Texas, with a principal place of business at 13920 SE Eastgate Way, Suite 400, Bellevue, WA 98005. HTC America further admits that its parent is HTC Corporation (“HTC”), a Taiwanese company with an address at No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan R.O.C. Except as expressly admitted herein, HTC America denies the remaining allegations set forth in Paragraph 8 of the Complaint.

9. The allegations of Paragraph 9 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 9 of the Second Amended Complaint, and therefore denies them.

10. The allegations of Paragraph 10 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 10 of the Second Amended Complaint, and therefore denies them.

11. The allegations of Paragraph 11 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 11 of the Second Amended Complaint, and therefore denies them.

JURISDICTION AND VENUE

12. HTC America admits that this action purports to arise under Title 35 of the United States Code, and that the Court has subject matter jurisdiction pursuant to U.S.C. §§ 1331 and 1338(a). However, HTC America lacks sufficient information to determine whether Plaintiff has proper standing to bring this lawsuit. Therefore, HTC America's admission as to the Court's subject matter jurisdiction should not be construed as an admission as to the Plaintiff's standing. Except as admitted, HTC America denies the allegations of Paragraph 12 of the Second Amended Complaint.

INFRINGEMENT OF U.S. PATENT NO. 7,015,868

13. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '868 Patent, or that Fractus currently holds all rights and interest in the '868 Patent and therefore denies this allegation. HTC America admits that a copy of the '868 Patent is attached to the Second Amended Complaint as Exhibit A, and that the face of the '868 Patent indicates that it is entitled "Multilevel Antennae" and that it purports on its face to have issued on March 21, 2006. HTC America denies any remaining allegations of Paragraph 13.

14. The allegations of Paragraph 14 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 14 of the Second Amended Complaint, and therefore denies them.

15. The allegations of Paragraph 15 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 15 of the Second Amended Complaint, and therefore denies them.

16. The allegations of Paragraph 16 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 16 of the Second Amended Complaint, and therefore denies them.

17. The allegations of Paragraph 17 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 17 of the Second Amended Complaint, and therefore denies them.

18. The allegations of Paragraph 18 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 18 of the Second Amended Complaint, and therefore denies them.

19. The allegations of Paragraph 19 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 19 of the Second Amended Complaint, and therefore denies them.

20. HTC America denies the allegations set forth in Paragraph 20 of the Second Amended Complaint.

21. The allegations of Paragraph 21 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 21 of the Second Amended Complaint, and therefore denies them.

22. The allegations of Paragraph 22 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 22 of the Second Amended Complaint, and therefore denies them.

23. The allegations of Paragraph 23 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 23 of the Second Amended Complaint, and therefore denies them.

24. HTC America denies the allegations set forth in Paragraph 24 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 24 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,123,208

25. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '208 Patent, or that Fractus currently holds all rights and interest in the '208 Patent and therefore denies this allegation. HTC America admits that a copy of the '208 Patent is attached to the Second Amended Complaint as Exhibit B, and that the face of the '208 Patent indicates that it is entitled "Multilevel Antennae" and that it

purports on its face to have issued on October 17, 2006. HTC America denies any remaining allegations of Paragraph 25.

26. The allegations of Paragraph 26 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 26 of the Second Amended Complaint, and therefore denies them.

27. The allegations of Paragraph 27 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 27 of the Second Amended Complaint, and therefore denies them.

28. The allegations of Paragraph 28 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 28 of the Second Amended Complaint, and therefore denies them.

29. The allegations of Paragraph 29 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 29 of the Second Amended Complaint, and therefore denies them.

30. The allegations of Paragraph 30 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 30 of the Second Amended Complaint, and therefore denies them.

31. The allegations of Paragraph 31 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 31 of the Second Amended Complaint, and therefore denies them.

32. HTC America denies the allegations set forth in Paragraph 32 of the Second Amended Complaint.

33. The allegations of Paragraph 33 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 33 of the Second Amended Complaint, and therefore denies them.

34. The allegations of Paragraph 34 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 34 of the Second Amended Complaint, and therefore denies them.

35. The allegations of Paragraph 35 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 35 of the Second Amended Complaint, and therefore denies them.

36. HTC America denies the allegations set forth in Paragraph 36 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 36 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,148,850

37. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '850 Patent, or that Fractus currently holds all rights and interest in the '850 Patent and therefore denies this allegation. HTC America admits that a copy of the '850 Patent is attached to the Second Amended Complaint as Exhibit C, and that the face of the '850 Patent indicates that it is entitled "Space-Filling Miniature Antennas" and that it purports on its face to have issued on December 12, 2006. HTC America denies any remaining allegations of Paragraph 37.

38. The allegations of Paragraph 38 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 38 of the Second Amended Complaint, and therefore denies them.

39. The allegations of Paragraph 39 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 39 of the Second Amended Complaint, and therefore denies them.

40. The allegations of Paragraph 40 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 40 of the Second Amended Complaint, and therefore denies them.

41. The allegations of Paragraph 41 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 41 of the Second Amended Complaint, and therefore denies them.

42. The allegations of Paragraph 42 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 42 of the Second Amended Complaint, and therefore denies them.

43. The allegations of Paragraph 43 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 43 of the Second Amended Complaint, and therefore denies them.

44. HTC America denies the allegations set forth in Paragraph 44 of the Second Amended Complaint.

45. The allegations of Paragraph 45 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 45 of the Second Amended Complaint, and therefore denies them.

46. The allegations of Paragraph 46 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 46 of the Second Amended Complaint, and therefore denies them.

47. The allegations of Paragraph 47 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 47 of the Second Amended Complaint, and therefore denies them.

48. HTC America denies the allegations set forth in Paragraph 48 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 48 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,202,822

49. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '822 Patent, or that Fractus currently holds all rights and interest in the '822 Patent and therefore denies this allegation. HTC America admits that a copy of the '822 Patent is attached to the Second Amended Complaint as Exhibit D, and that the face of the '822 Patent indicates that it is entitled "Space-Filling Miniature Antennas" and that it purports on its face to have issued on April 10, 2007. HTC America denies any remaining allegations of Paragraph 49.

50. The allegations of Paragraph 50 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 50 of the Second Amended Complaint, and therefore denies them.

51. The allegations of Paragraph 51 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 51 of the Second Amended Complaint, and therefore denies them.

52. The allegations of Paragraph 52 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 52 of the Second Amended Complaint, and therefore denies them.

53. The allegations of Paragraph 53 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 53 of the Second Amended Complaint, and therefore denies them.

54. The allegations of Paragraph 54 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 54 of the Second Amended Complaint, and therefore denies them.

55. The allegations of Paragraph 55 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 55 of the Second Amended Complaint, and therefore denies them.

56. HTC America denies the allegations set forth in Paragraph 56 of the Second Amended Complaint.

57. The allegations of Paragraph 57 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 57 of the Second Amended Complaint, and therefore denies them.

58. The allegations of Paragraph 58 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 58 of the Second Amended Complaint, and therefore denies them.

59. The allegations of Paragraph 59 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 59 of the Second Amended Complaint, and therefore denies them.

60. HTC America denies the allegations set forth in Paragraph 60 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 60 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,312,762

61. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '762 Patent, or that Fractus currently holds all rights and interest in the '762 Patent and therefore denies this allegation. HTC America admits that a copy of the '762 Patent is attached to the Second Amended Complaint as Exhibit E, and that the face of the '762 Patent indicates that it is entitled "Loaded Antenna" and that it purports on its face to have issued on December 25, 2007. HTC America denies any remaining allegations of Paragraph 61.

62. The allegations of Paragraph 62 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 62 of the Second Amended Complaint, and therefore denies them.

63. The allegations of Paragraph 63 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 63 of the Second Amended Complaint, and therefore denies them.

64. The allegations of Paragraph 64 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 64 of the Second Amended Complaint, and therefore denies them.

65. The allegations of Paragraph 65 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 65 of the Second Amended Complaint, and therefore denies them.

66. The allegations of Paragraph 66 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 66 of the Second Amended Complaint, and therefore denies them.

67. The allegations of Paragraph 67 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 67 of the Second Amended Complaint, and therefore denies them.

68. HTC America denies the allegations set forth in Paragraph 68 of the Second Amended Complaint.

69. The allegations of Paragraph 69 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 69 of the Second Amended Complaint, and therefore denies them.

70. The allegations of Paragraph 70 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 70 of the Second Amended Complaint, and therefore denies them.

71. The allegations of Paragraph 71 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 71 of the Second Amended Complaint, and therefore denies them.

72. HTC America denies the allegations set forth in Paragraph 72 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 72 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,394,432

73. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '432 Patent, or that Fractus currently holds all rights and interest in the '432 Patent and therefore denies this allegation. HTC America admits

that a copy of the '432 Patent is attached to the Second Amended Complaint as Exhibit F, and that the face of the '432 Patent indicates that it is entitled "Multilevel Antenna" and that it purports on its face to have issued on July 1, 2008. HTC America denies any remaining allegations of Paragraph 73.

74. The allegations of Paragraph 74 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 74 of the Second Amended Complaint, and therefore denies them.

75. The allegations of Paragraph 75 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 75 of the Second Amended Complaint, and therefore denies them.

76. The allegations of Paragraph 76 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 76 of the Second Amended Complaint, and therefore denies them.

77. The allegations of Paragraph 77 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 77 of the Second Amended Complaint, and therefore denies them.

78. The allegations of Paragraph 78 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 78 of the Second Amended Complaint, and therefore denies them.

79. The allegations of Paragraph 79 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 79 of the Second Amended Complaint, and therefore denies them.

80. HTC America denies the allegations set forth in Paragraph 80 of the Second Amended Complaint.

81. The allegations of Paragraph 81 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 81 of the Second Amended Complaint, and therefore denies them.

82. The allegations of Paragraph 82 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 82 of the Second Amended Complaint, and therefore denies them.

83. The allegations of Paragraph 83 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 83 of the Second Amended Complaint, and therefore denies them.

84. HTC America denies the allegations set forth in Paragraph 84 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to

the truth or falsity of the allegations set forth in Paragraph 84 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,397,431

85. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '431 Patent, or that Fractus currently holds all rights and interest in the '431 Patent and therefore denies this allegation. HTC America admits that a copy of the '431 Patent is attached to the Second Amended Complaint as Exhibit G, and that the face of the '431 Patent indicates that it is entitled "Multilevel Antennae" and that it purports on its face to have issued on July 8, 2008. HTC America denies any remaining allegations of Paragraph 85.

86. The allegations of Paragraph 86 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 86 of the Second Amended Complaint, and therefore denies them.

87. The allegations of Paragraph 87 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 87 of the Second Amended Complaint, and therefore denies them.

88. The allegations of Paragraph 88 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 88 of the Second Amended Complaint, and therefore denies them.

89. The allegations of Paragraph 89 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 89 of the Second Amended Complaint, and therefore denies them.

90. The allegations of Paragraph 90 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 90 of the Second Amended Complaint, and therefore denies them.

91. The allegations of Paragraph 91 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 91 of the Second Amended Complaint, and therefore denies them.

92. HTC America denies the allegations set forth in Paragraph 92 of the Second Amended Complaint.

93. The allegations of Paragraph 93 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 93 of the Second Amended Complaint, and therefore denies them.

94. The allegations of Paragraph 94 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 94 of the Second Amended Complaint, and therefore denies them.

95. The allegations of Paragraph 95 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 95 of the Second Amended Complaint, and therefore denies them.

96. HTC America denies the allegations set forth in Paragraph 96 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 96 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,411,556

97. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '556 Patent, or that Fractus currently holds all rights and interest in the '556 Patent and therefore denies this allegation. HTC America admits that a copy of the '556 Patent is attached to the Second Amended Complaint as Exhibit H, and that the face of the '556 Patent indicates that it is entitled "Multiband Monopole Antenna For A Mobile Communications Device" and that it purports on its face to have issued on August 12, 2008. HTC America denies any remaining allegations of Paragraph 97.

98. The allegations of Paragraph 98 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 98 of the Second Amended Complaint, and therefore denies them.

99. The allegations of Paragraph 99 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 99 of the Second Amended Complaint, and therefore denies them.

100. The allegations of Paragraph 100 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 100 of the Second Amended Complaint, and therefore denies them.

101. The allegations of Paragraph 101 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 101 of the Second Amended Complaint, and therefore denies them.

102. The allegations of Paragraph 102 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 102 of the Second Amended Complaint, and therefore denies them.

103. The allegations of Paragraph 103 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 103 of the Second Amended Complaint, and therefore denies them.

104. HTC America denies the allegations set forth in Paragraph 104 of the Second Amended Complaint.

105. The allegations of Paragraph 105 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 105 of the Second Amended Complaint, and therefore denies them.

106. The allegations of Paragraph 106 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 106 of the Second Amended Complaint, and therefore denies them.

107. The allegations of Paragraph 107 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 107 of the Second Amended Complaint, and therefore denies them.

108. HTC America denies the allegations set forth in Paragraph 108 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 108 of the Second Amended Complaint, and therefore denies them.

INFRINGEMENT OF U.S. PATENT NO. 7,528,782

109. HTC America lacks knowledge sufficient to form a belief as to the truth or falsity of the allegation that Fractus is the assignee of the '782 Patent, or that Fractus currently holds all rights and interest in the '782 Patent and therefore denies this allegation. HTC America admits that a copy of the '782 Patent is attached to the Second Amended Complaint as Exhibit I, and that the face of the '782 Patent indicates that it is entitled "Multilevel Antennae" and that it purports on its face to have issued on May 5, 2009. HTC America denies any remaining allegations of Paragraph 109.

110. The allegations of Paragraph 110 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 110 of the Second Amended Complaint, and therefore denies them.

111. The allegations of Paragraph 111 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 111 of the Second Amended Complaint, and therefore denies them.

112. The allegations of Paragraph 112 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 112 of the Second Amended Complaint, and therefore denies them.

113. The allegations of Paragraph 113 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 113 of the Second Amended Complaint, and therefore denies them.

114. The allegations of Paragraph 114 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 114 of the Second Amended Complaint, and therefore denies them.

115. The allegations of Paragraph 115 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as

to the truth or falsity of the allegations set forth in Paragraph 115 of the Second Amended Complaint, and therefore denies them.

116. HTC America denies the allegations set forth in Paragraph 116 of the Second Amended Complaint.

117. The allegations of Paragraph 117 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 117 of the Second Amended Complaint, and therefore denies them.

118. The allegations of Paragraph 118 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 118 of the Second Amended Complaint, and therefore denies them.

119. The allegations of Paragraph 119 of the Second Amended Complaint relate solely to another defendant. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 119 of the Second Amended Complaint, and therefore denies them.

120. HTC America denies the allegations set forth in Paragraph 120 of the Second Amended Complaint as they relate to HTC America. The rest of the allegations relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 120 of the Second Amended Complaint, and therefore denies them.

WILLFUL INFRINGEMENT

121. The allegations of Paragraph 121 of the Second Amended Complaint relate solely to other defendants. Accordingly, HTC America lacks sufficient information to form a belief as to the truth or falsity of the allegations set forth in Paragraph 121 of the Second Amended Complaint, and therefore denies them.

JURY DEMAND

122. HTC America admits the Plaintiff has demanded a jury trial.

PRAYER FOR RELIEF

HTC America denies that Plaintiff is entitled to any of the relief it seeks with respect to HTC America, including any of the relief sought in Paragraphs a-e of its Prayer For Relief against HTC America. Plaintiff's prayer for relief with regard to HTC America should, therefore, be denied in its entirety and with prejudice, and Plaintiff should take nothing. With respect to the other defendants, HTC America lacks sufficient information to form a belief as to whether Plaintiff is entitled to the relief sought or any relief whatsoever, and on that basis denies the same.

AFFIRMATIVE DEFENSES

HTC America repeats the responses to the allegations of Paragraphs 1-122 of the Second Amended Complaint as set forth above and incorporates them herein by reference. HTC America asserts the following Affirmative Defenses listed below. HTC America reserves the right to add additional defenses, including further allegations of inequitable conduct, consistent with the facts discovered in the case.

FIRST AFFIRMATIVE DEFENSE
(Non-Infringement)

123. HTC America has not infringed and is not infringing, either literally or under the doctrine of equivalents, any valid and enforceable claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent. HTC America has not contributed to any infringement of any valid and enforceable claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent, and has not induced infringement of any valid and enforceable claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent.

SECOND AFFIRMATIVE DEFENSE
(Invalidity)

124. One or more of the claims of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent are invalid because they fail to satisfy one or more conditions for patentability specified in Title 35 of the United States Code, including, inter alia, §§101, 102, 103, and/or 112.

THIRD AFFIRMATIVE DEFENSE
(Laches, Estoppel and Unclean Hands)

125. Upon information and belief, Plaintiff's claims are barred, in whole or in part, under the equitable doctrines of laches, estoppel and/or unclean hands.

FOURTH AFFIRMATIVE DEFENSE
(Unenforceability Due to Inequitable Conduct)

126. The '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent (collectively "the patents-

in-suit”) are unenforceable due to inequitable conduct of Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the United States Patent & Trademark Office (the “USPTO”). On information and belief, Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO made misrepresentations and/or failed to disclose material information to the USPTO with the intent to deceive the same.

127. Based on the allegations in Paragraphs 183 to 199, incorporated herein by reference, the ‘850 Patent and the ‘822 Patent are unenforceable due to inequitable conduct of the Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

128. Based on the allegations Paragraphs 183 to 199, incorporated herein by reference, the ‘868 Patent, the ‘208 Patent, the ‘432 Patent, the ‘431 Patent, and the ‘782 Patent are unenforceable due to inequitable conduct of the Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

129. Based on the allegations in Paragraphs 183 to 199, incorporated herein by reference, the ‘762 Patent and the ‘556 Patent are unenforceable due to inequitable conduct of the Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

RESERVATION OF AFFIRMATIVE DEFENSES

130. HTC America reserves the right to assert additional affirmative defenses based on future discovery or further factual investigation of this case.

HTC AMERICA’S COUNTERCLAIM

HTC America, for its counterclaims against Plaintiff, alleges as follows.

THE PARTIES

131. Counterclaimant HTC America is incorporated and existing under the laws of the State of Texas, with a principal place of business at 13920 SE Eastgate Way, Suite 400, Bellevue, WA 98005.

132. On information and belief, based on Plaintiff's allegations set forth in the Second Amended Complaint, counterclaim defendant Fractus is a foreign corporation duly organized and existing under the laws of Spain with its principal business in Barcelona, Spain.

JURISDICTION AND VENUE

133. The counterclaims include claims for declaratory judgment of patent non-infringement and patent invalidity, and jurisdiction is proper under the Federal Declaratory Judgment Act, 28 U.S.C. §§ 2201 and 2202, the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*, concerning actions related to patents, and 28 U.S.C. §§ 1331, 1332, and 1338.

134. Venue is proper in this Court under 28 U.S.C. §§ 1391 and 1400(b).

135. This Court has personal jurisdiction over Fractus by virtue of Fractus' filing of the Second Amended Complaint against HTC America in this Court.

GENERAL ALLEGATIONS

136. On December 8, 2009, Fractus filed the Second Amended Complaint for Patent Infringement in the United States District Court for the Eastern District of Texas, Tyler Division. The Second Amended Complaint is docketed under Case Number 6:09-cv203. The Second Amended Complaint alleges that HTC America has been and is now infringing the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent and the '782 Patent.

137. In Paragraph 13 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '868 Patent.

138. In Paragraph 25 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '208 Patent.

139. In Paragraph 37 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '850 Patent.

140. In Paragraph 49 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '822 Patent.

141. In Paragraph 61 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '762 Patent.

142. In Paragraph 73 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '432 Patent.

143. In Paragraph 85 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '431 Patent.

144. In Paragraph 97 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '556 Patent.

145. In Paragraph 109 of the Second Amended Complaint, Fractus alleged that it is the assignee of the '782 Patent.

146. An actual and justiciable controversy has arisen and presently exists between the parties to which HTC America desires a declaration of rights pursuant to 28 U.S.C. § 2201(a) and Rule 57 of the Federal Rules of Civil Procedure.

COUNT ONE:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,015,868

147. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '868 Patent.

148. HTC America is entitled to a declaratory judgment that it is not infringing and has not infringed any valid claim of the '868 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT TWO:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,123,208

149. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '208 Patent.

150. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '208 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT THREE:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,148,850

151. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '850 Patent.

152. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '850 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT FOUR:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,202,822

153. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '822 Patent.

154. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '822 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT FIVE:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,312,762

155. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '762 Patent.

156. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '762 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT SIX:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,394,432

157. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '432 Patent.

158. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '432 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT SEVEN:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,397,431

159. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '431 Patent.

160. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '431 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT EIGHT:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,411,556

161. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '556 Patent.

162. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '556 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT NINE:
DECLARATORY RELIEF REGARDING NON-INFRINGEMENT OF
U.S. PATENT NO. 7,528,782

163. HTC America does not and has not infringed, contributed to the infringement, or induced infringement of any valid claim of the '782 Patent.

164. HTC America is entitled to a declaratory judgment that HTC America is not infringing and has not infringed any valid claim of the '782 Patent literally, under the Doctrine of Equivalents, contributorily, or by inducement.

COUNT TEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,015,868

165. One or more claims of the '868 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

166. HTC America is entitled to a declaratory judgment that one or more claims of the '868 Patent are invalid.

COUNT ELEVEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,123,208

167. One or more claims of the '208 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

168. HTC America is entitled to a declaratory judgment that one or more claims of the '208 Patent are invalid.

COUNT TWELVE:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,148,850

169. One or more claims of the '850 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

170. HTC America is entitled to a declaratory judgment that one or more claims of the '850 Patent are invalid.

COUNT THIRTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,202,822

171. One or more claims of the '822 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

172. HTC America is entitled to a declaratory judgment that one or more claims of the '822 Patent are invalid.

COUNT FOURTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,312,762

173. One or more claims of the '762 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

174. HTC America is entitled to a declaratory judgment that one or more claims of the '762 Patent are invalid.

COUNT FIFTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,394,432

175. One or more claims of the '432 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

176. HTC America is entitled to a declaratory judgment that one or more claims of the '432 Patent are invalid.

COUNT SIXTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,397,431

177. One or more claims of the ‘431 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

178. HTC America is entitled to a declaratory judgment that one or more claims of the ‘431 Patent are invalid.

COUNT SEVENTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,411,556

179. One or more claims of the ‘556 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

180. HTC America is entitled to a declaratory judgment that one or more claims of the ‘556 Patent are invalid.

COUNT EIGHTEEN:
DECLARATORY RELIEF REGARDING INVALIDITY OF
U.S. PATENT NO. 7,528,782

181. One or more claims of the ‘782 Patent are invalid for failure to comply with the provisions of the Patent Laws 35 U.S.C. §§ 1, et seq., including, but not limited to, one or more of 35 U.S.C. §§ 101, 102, 103, and/or 112.

182. HTC America is entitled to a declaratory judgment that one or more claims of the ‘782 Patent are invalid.

COUNT NINETEEN:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,148,850 AND 7,202,822

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld United States Patent No. 5,363,114 and Rejections Based Thereupon, Received in an Application for United States Patent No. 7,511,675, in the Prosecution of the '850 Patent, the '822 Patent, and the Parent Application of the '850 Patent and the '822 Patent

183. The '850 Patent and the '822 Patent are unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information received in a related Fractus application as follows, and as set forth in Paragraphs 184-198 and all of their subparagraphs which are all incorporated herein by reference:

a. The applications leading to the '850 Patent and the '822 Patent are children of United States Patent Application No. 10/182,635, filed in the U.S. on November 1, 2002 (the '635 Patent Application) (the '635 Patent Application, and all the patents and applications claiming priority therefrom, including the '850 Patent and the '822 Patent, collectively referred to as the "Space Filling Miniature Patent Family").

b. As discussed below, information was withheld from all of the applications in the Space Filling Miniature Patent Family. And, this information was material to claims in all of the applications in the Space Filling Miniature Patent Family.

c. David Maiorana and Joseph Sauer of the Jones Day law firm were identified as Fractus' Patent Attorneys and were substantively involved in the prosecution of the Space Filling Miniature Patent Family. Both Mr. Maiorana and Mr. Sauer worked in the Cleveland office of Jones Day. Additionally, upon information and belief, Mr. Maiorana and Mr. Sauer discussed and shared prosecution strategies amongst one another in the prosecution of multiple Fractus patent applications, including the applications in the Space Filling Miniature

Patent Family. As a result, Mr. Maiorana and Mr. Sauer had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution of Fractus patent applications, including the applications in the Space Filling Miniature Patent Family.

d. David Maiorana of Jones Day and Joseph Sauer of Jones Day prosecuted at least the following two “space-filling curve” applications for Fractus: the ‘635 Patent Application and another application leading to U.S. Patent No. 7,511,675 (the ‘675 Patent).

e. Each of Carles Puente Baliarda; Edouard Jean Louis Rozan; and Jaime Anguera Pros (hereinafter, the “Fractus Common Inventor Group”) were listed as inventors on each and every one of the following applications/patents: the ‘675 Patent, the ‘850 Patent, the ‘822 Patent, and the ‘635 Patent Application. Additionally, upon information and belief, one or more of the inventors in the Fractus Common Inventor Group were substantively involved in one or more of the prosecution of the applications leading to the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent and the ‘822 Patent. Accordingly, each person in this Fractus Common Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO for each of the ‘635 Patent Application and the applications leading to the ‘675 Patent, the ‘850 Patent, and the ‘822 Patent.

f. The application leading to the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent and the ‘822 Patent are related because all include or included claims directed towards a “space-filling curve” and a “box-counting dimension” (which Applicants sometimes referred to as a “grid-dimension” or a “grid dimension curve” – where the “grid-dimension” is greater than one). The following are non-limiting examples:

‘675 Patent: In the application as filed, Claims 1-71 included a “space-filling curve” feature whereas Claims 72-74 included a “grid dimension curve” feature.

“Grid dimension curve” was defined in the ‘675 Specification as follows: “[f]or the purposes of this application, the term grid dimension curve is used to describe a curve geometry having a grid dimension that is greater than one (1).”

‘635 Patent Application: In the application as filed, Independent Claims 1 and 14 and their dependent claims included a “space-filling curve” feature, and Independent Claim 2 and its dependent claims recited that “said SFC features a box-counting dimension greater than one.”

‘850 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the ‘635 Patent Application) and Claims 17-106 were added. All of Claims 17-106 included a “space-filling curve” feature. Additionally, at least Independent Claims 17, 64, 87 and their dependent claims further included a box-counting dimension feature.

‘822 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the ‘635 Patent Application) and Claims 17-73 were added. Of these claims, at least Independent Claim 55 included a “multi-segment curve” feature and further recited that “the multi-segment curve has a box-counting dimension greater than one.”

g. Upon information and belief, “grid dimension” and “box-counting dimension” were interchangeably used by Fractus to describe the same concept. Specifically, “box-counting dimension” was used in earlier applications. However, as described in further detail below with regards to difficulties encountered by Fractus in a European application, Fractus subsequently changed this term to “grid dimension” in later applications. As described above, the “grid dimension curve” claim feature was defined in the ‘675 Patent specification as follows: “a curve geometry having a grid dimension that is greater than one.”

h. Upon information and belief, Fractus treated the “multi-segment curve” claim feature as a similar feature to the “space-filling curve” claim feature.

i. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group recognized the relatedness of the ‘635 Patent Application to the application leading to the ‘675 Patent.

j. As an example of the preceding subparagraph, David Maiorana of Jones Day filed the exact same Information Disclosure Statement (“IDS”) on more than one occasion in each of the ‘635 Patent Application and the application leading to the ‘675 Patent. On March 15, 2004, David Maiorana of Jones Day filed these two identical IDSs respectively in the ‘635 Patent Application and the application leading to the ‘675 Patent (application leading to the ‘675 Patent on the left and the ‘635 Patent Application on the right):

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.98(b))

Atty Docket No.: 13127700002

Serial No.: 10422,578

Applicant(s): Puntre Ballarda et al.

Filing Date: April 24, 2003

Group: Not Yet Assigned

U.S. PATENT DOCUMENTS

Exam. Init.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
	5 4 5 3 7 5 1	09/26/1995	Tuskamoto et al.			
	5 4 9 5 2 6 1	02/27/1996	Baker et al.			
	5 5 3 4 8 7 7	01/09/1996	Sorbellio et al.			
	6 0 9 1 3 6 5	07/18/2000	Demeryd et al.			
	6 2 1 1 8 2 4	04/03/2001	Hollen et al.			
	6 5 2 5 6 9 1	02/25/2003	Varadan et al.			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Init.	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation
	0 6 8 8 0 4 0	12/29/1993	EP			
	1 1 4 8 5 8 1	10/24/2001	EP			
	0 0 5 2 7 8 4	09/08/2000	PCT			

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant pages, Place of Publication***)

Examiner: _____ Date Considered: _____

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.98(b))

Atty Docket No.: 13134400003

Serial No.: 10182,633

Applicant(s): Puntre Ballarda et al.

Filing Date: November 1, 2002

Group: Not Yet Assigned

U.S. PATENT DOCUMENTS

Exam. Init.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
	5 4 5 3 7 5 1	09/26/1995	Tuskamoto et al.			
	5 4 9 5 2 6 1	02/27/1996	Baker et al.			
	5 5 3 4 8 7 7	01/09/1996	Sorbellio et al.			
	6 0 9 1 3 6 5	07/18/2000	Demeryd et al.			
	6 2 1 1 8 2 4	04/03/2001	Hollen et al.			
	6 5 2 5 6 9 1	02/25/2003	Varadan et al.			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Init.	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation
	0 6 8 8 0 4 0	12/29/1993	EP			
	1 1 4 8 5 8 1	10/24/2001	EP			
	0 0 5 2 7 8 4	09/08/2000	PCT			

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant pages, Place of Publication***)

Examiner: _____ Date Considered: _____

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Then, approximately a month later, David Maiorana of Jones Day again filed these two identical IDSs respectively in the ‘635 Patent Application and the application leading to the ‘675 Patent approximately three days apart (April 19, 2004 for the ‘635 Patent Application on the left and April 16, 2004 for the application leading to the ‘675 Patent on the right):

n. On October 4, 2004, in the prosecution of the application leading to the '675 Patent, Examiner Wimer of the USPTO issued an office action (addressed to Joseph Sauer of Jones Day), which was received by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group. Examiner Wimer's rejection informed one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group that United States Patent No. 5,363,114 (the '114 Patent) disclosed both the "space-filling curve" claim feature and the "grid dimension curve" claim feature (defined in the '675 Patent specification as follows: "a curve geometry having a grid dimension that is greater than one"). Specifically, the '114 Patent was used in a 102(b) rejection of claims with the "space-filling curve" feature as follows, in part:

3. Claims 1,3,4,6 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoemaker (5363114).

Regarding Claims 1,3,4,6,11-13, Shoemaker shows an antenna system integrated with a physical component of a motor vehicle comprising a radio antenna 20 having a radiating arm defining a space-filling curve "R" of right-angled bends and straight lines and having a feed point (at connector 41) and coupled to a radio, and formed on a dielectric substrate "C"; a grounding point 63 (Fig. 12), a loading point 50,58 (Fig.11), all arranged as claimed.

And, the '114 Patent was used in a 103(a) rejection of claims with the "grid dimension curve" feature as follows, in part:

7. Claims 9,10,18-39,43-68 and 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoemaker as applied to claims 1 above, and further in view of Thill et al. (6087990).

Regarding Claims 9,10,18-39,43-68 and 70-74, Shoemaker shows the basic antenna structure including a "grid dimension curve". No multi-band antenna arrangement is shown. Thus, Thill et al. are cited as resolving the level of

o. At the same time, on October 4, 2004, the features of the “space-filling curve” and the “box-counting dimension” being greater than one (a “grid-dimension curve,” according to the ‘675 Patent specification) were also present in the claims of the co-pending ‘635 Patent Application. Accordingly, the ‘114 Patent and the rejections based thereupon were highly material to the ‘635 Patent Application. Furthermore, the ‘114 Patent and rejections based thereupon were not cumulative to references already of record in the ‘635 Patent Application. At a minimum, Examiner Wimer’s rejection based on the ‘114 Patent was not cumulative to references already of record in the ‘635 Patent Application. Notwithstanding this, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group withheld the ‘114 Patent and Examiner’s Wimer’s rejection from Examiner Nguyen in the prosecution of the ‘635 Patent Application.

p. In addition to withholding the ‘114 Patent and rejections based thereupon in the prosecution of the ‘635 Patent Application, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group additionally withheld other references cited by Examiner Wimer in rejecting claims of the application leading to the ‘635 Patent. In particular, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group withheld United States Patent Nos. 6,011,518 (the “‘518 Patent”) and 6,087,990 (the “‘990 Patent”) — both of which were used as secondary references to the ‘114 Patent in an obviousness rejection of October 4, 2004 for claims of the application leading to the ‘675 Patent.

q. Despite previously citing the same references in both the application leading to the ‘675 Patent and the ‘635 Patent Application, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group

withheld rejections and references received in the application leading to the '675 Patent for the prosecution of the '635 Patent Application.

r. Because the '635 Patent Application had not yet received a First Action on the Merits (FAOM) on October 4, 2004, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group had at least a first opportunity ("First Opportunity") to disclose the '114 Patent and the rejections based thereupon to Examiner Nguyen in the prosecution of '635 Patent Application. Specifically, an information disclosure statement without fee could have been filed in the '635 Patent Application between October 4, 2004 up until December 13, 2004 — the date of the FAOM for the '635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose not to act on this First Opportunity.

s. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group recognized their duty to disclose material prior art cited in the application leading to the '675 Patent in other Fractus patent applications. On December 13, 2004, almost two months after receiving the rejection in the application leading to the '675 Patent, David Maiorana of Jones Day cited the '114 Patent, the '518 Patent, and the '990 Patent in United States Patent Application No. 10/963,080 entitled "Multilevel Antenna." Significantly, United States Patent Application No. 10/963,080 entitled "Multilevel Antenna" did not include "box-counting dimension" claim features or "space-filling curve" claim features whereas the Space Filling Miniature Patent Family did include such claim features. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day,

and/or inventors in the Fractus Common Inventor Group withheld the '114 Patent from the prosecution of the applications for the Space Filling Miniature Patent Family.

t. On December 13, 2004, in the prosecution of the '635 Patent Application, Examiner Nguyen issued a FAOM (addressed to David Maiorana of Jones Day), which was received by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group. Examiner Nguyen did not cite the '114 Patent. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group had a second opportunity ("Second Opportunity") to disclose the '114 Patent and the rejections based thereupon to Examiner Nguyen in the prosecution of '635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose not to act on this Second Opportunity.

u. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group recognized the materiality of the '114 Patent to claims with the "space-filling curve" feature and the "box-counting dimension being greater than one" feature (a "grid-dimension curve," according to the '675 Patent specification). Specifically, on January 6, 2005, in response to Examiner Wimer's rejection in the application leading to the '675 Patent, Joseph Sauer of Jones Day Second Amended the claims in attempts to distinguish them from the '114 Patent, specifying that the "space-filling curve" included at least "two-hundred segments."

v. Having just Second Amended claims on January 6, 2005 to overcome the '114 Patent in the application leading to the '675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group had

a third opportunity (“Third Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to Examiner Nguyen in the prosecution of ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose not to act on this Third Opportunity.

w. In the January 6, 2005 response to Examiner Wimer’s rejection in the application leading to the ‘675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group acknowledged the relatedness or sameness of the “box-counting dimension” and “grid-dimension” claim feature. The ‘675 Patent does not include the term “box-counting dimension.” Instead, it includes the term “grid dimension.” Additionally, Examiner Wimer never used the term “box-counting dimension” in his rejection of October 4, 2004 for the application leading to the ‘675 Patent. Notwithstanding this, in the January 6, 2005 response, Joseph Sauer of Jones Day argued that the ‘114 Patent did not disclose the “grid dimension curve” or “box-counting dimension” claim feature, indicating the “box-counting dimension” is a “similar dimension criteria” to the “grid dimension” as follows (emphasis added).

The concept of a grid dimension curve is specifically defined in the written description as “a curve geometry having a grid dimension that is greater than one (1).” (Detailed Description, page 29, lines 8-9). A method for calculating the grid dimension of a curve geometry is set forth in the specification beginning at page 28, line 15. ***The Shoemaker reference makes no reference to the grid dimension of the antenna structure (nor does it refer to any other similar dimensional criteria, such as a box counting dimension.)***

Therefore, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group recognized and understood the relatedness or sameness of the “box-counting dimension” feature recited in the ‘635 Patent Application and the “grid-dimension” feature recited in the application leading to the ‘675 Patent, and yet withheld

the '114 Patent and the rejections based thereupon from Examiner Nguyen in the prosecution of the Space Filling Miniature Patent Family.

x. Despite the knowledge of the '114 Patent and the knowledge of the rejections based thereupon, and the knowledge that similar claims had to be Second Amended to attempt to overcome the '114 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group did not inform Examiner Nguyen of the '114 Patent or the rejections based thereupon. Particularly, on March 17, 2005, approximately two months after making an amendment to overcome the '114 Patent in a response for the prosecution of the '635 Patent Application of the Space Filling Miniature Patent Family, instead of apprising Examiner Nguyen and the USPTO of the '114 Patent or the rejections recently received in the application leading to the '675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group remained silent.

y. Moreover, in its March 17, 2005 response in the prosecution of the '635 Patent Application, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group decided to take claims that Examiner Nguyen identified as being allowable in a December 13, 2004 rejection (e.g., Dependent Claim 2). Of the claims identified as being allowable, Examiner Nguyen indicated that the cited references (which did not include the '114 Patent or the rejections based thereupon withheld from Examiner Nguyen) did not include the claim feature of a "box-counting dimension" being greater than one (e.g., as contained in Dependent Claim 2) — the same claim feature that one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the

Fractus Common Inventor Group knew Examiner Wimer of the application leading to the '675 Patent found was disclosed by the '114 Patent.

z. In this March 17, 2005 response, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group took the claims (e.g., Dependent Claim 2) allowed by Examiner Nguyen knowing that Examiner Wimer believed that another reference, the '114 Patent, disclosed such claim features, and knowing that Examiner Nguyen did not know of the '114 Patent or Examiner Wimer's rejection based thereupon.

aa. In the March 17, 2005 response for the 'the '635 Patent Application, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group had a fourth opportunity ("Fourth Opportunity") to inform Examiner Nguyen of the '114 Patent and the rejections based thereupon. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose not to act on this Fourth Opportunity.

bb. The pattern of withholding information from the USPTO in the prosecution of the Space Filling Miniature Patent Family continued. On April 7, 2005, in the prosecution of the application leading to the '675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group was reminded, again, of the highly material nature of the '114 Patent. Specifically, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group received another rejection (addressed to Joseph Sauer of Jones Day) from Examiner Wimer at the USPTO. Examiner Wimer's rejection indicated that the '114 Patent disclosed the "space-filling curve" claim feature and the "box-counting dimension being greater

than one” claim feature (the so-called “grid dimension curve”) — even after the claims were further Second Amended to require that the “space-filling curve” included at least “two-hundred segments.”

cc. At this time, the ‘635 Patent Application had not yet issued as a patent. Therefore, with the rejection of April 7, 2005 described in the preceding subparagraph, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group had a fifth opportunity (“Fifth Opportunity”) to inform Examiner Nguyen of the ‘114 Patent and the rejections based thereupon. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose not to act on this Fifth Opportunity.

dd. As identified in the preceding subparagraphs, during the six month time period between October 4, 2004 and April 7, 2005, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group could have acted on any given day of any given week to inform Examiner Nguyen of the ‘114 Patent and Examiner Wimer’s rejections based thereupon. Significantly, during this six month time period, there were at least five distinct opportunities that served as prompting reminders to disclose the ‘114 Patent, and the rejections based thereupon to Examiner Nguyen in the examination of the ‘635 Patent Application:

First Opportunity (Application leading to the '675 Patent - October 4, 2004): Examiner Wimer's rejection indicated that the '114 Patent disclosed both the "space-filling curve" claim feature and the "grid dimension curve" claim feature (defined in the '675 Patent specification as follows: "a curve geometry having a grid dimension that is greater than one"). These same claim features are contained in the '635 Patent Application because the "box-counting dimension greater than one" claim feature and the "grid dimension curve" claim feature are the same (as recognized by Joseph Sauer of Jones Day). An IDS (disclosing the '114 Patent and the rejections based thereupon) could have been filed in the '635 Patent Application without fee, but is not. As a result, Examiner Nguyen is unaware of the '114 Patent and Examiner Wimer's rejections based thereupon.

Second Opportunity (the '635 Patent Application - December 13, 2004): In a FAOM, Examiner Nguyen identified claims with a "box-counting dimension greater than one" as allowable. Examiner Nguyen is still unaware of the '114 Patent and Examiner Wimer's rejections based thereupon.

Third Opportunity (Application leading to the '675 Patent - January 6, 2005): Joseph Sauer of Jones Day Second Amended the "space-filling curve" claims in attempts to distinguish them from the '114 Patent by specifying that the "space-filling curve" included at least "two-hundred segments." Joseph Sauer of Jones additionally made arguments alleging that the '114 Patent did not disclose the "grid dimension curve" or "box-counting dimension greater than one" claim feature, indicating the "box-counting dimension" is a "similar dimension criteria" to the "grid dimension." Examiner Nguyen is still unaware of the '114 Patent and Examiner Wimer's rejections based thereupon.

Fourth Opportunity ('635 Patent Application - March 17, 2005): Joseph Sauer of Jones Day takes claims directed to the "box-counting dimension greater than one" feature from Examiner Nguyen. Examiner Nguyen is still unaware of the '114 Patent and Examiner Wimer's rejections based thereupon.

Fifth Opportunity (Application leading to the '675 Patent - April 7, 2005): Examiner Wimer's rejection indicated that the '114 Patent still discloses the claim features, including the "space-filling curve" feature and the "box-counting dimension being greater than one" feature (the so-called "grid dimension curve") – even after the claims were further Second Amended to require that the "space-filling curve" included at least "two-hundred segments." Examiner Nguyen is still unaware of the '114 Patent and Examiner Wimer's rejections based thereupon.

Despite these five opportunities to disclose the '114 Patent and Examiner's Wimer's rejections based thereupon, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group chose to withhold them.

ee. In the prosecution of the application leading to the '675 Patent, to ultimately overcome the highly material '114 Patent, at least two requests for continued examinations (RCEs) were filed and further amendments were made specifying that the size of the segments in the "space-filling curve" were less than "34 mm" and that the antenna operated in FM bands.

ff. Despite these opportunities and continued reminders of the materiality of the '114 Patent in the preceding subparagraphs and amendments made to overcome the '114 Patent in the prosecution of the application leading to the '675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group repeatedly withheld the '114 Patent and the multiple rejections based thereupon from Examiner Nguyen.

gg. United States Patent Application No. 12/347,462 (the '462 Patent Application) is a member of the Space Filling Miniature Patent Family, purportedly claiming priority to the '635 Patent Application.

hh. Brian Walker of Howison & Arnott, LLP is prosecuting the '462 Patent Application. Accordingly, Mr. Walker has a duty of candor and good faith in dealing with the USPTO, which includes a duty to disclose material information to the USPTO for the '462 Patent Application.

ii. Each of Carles Puente Baliarda, Edouard Jean Louis Rozan, and Jaume Anguera Pros, all members of the Fractus Common Inventor Group, are listed as inventors on the '462 Patent Application. Upon information and belief, one or more of the inventors in the Fractus Common Inventor Group were substantively involved in the prosecution of the '462 Patent Application. Accordingly, each person in this Fractus Common Inventor Group had a duty

of candor and good faith in dealing with the USPTO, which includes a duty to disclose material information to the USPTO for the '462 Patent Application.

jj. On April 21, 2009, a preliminary amendment was filed in the '462 Application to replace Claims 1-17 with new Claims 18-145, at least some of which are directed towards a "multi-segment curve" and "box-counting dimension." The following are non-limiting examples:

'462 Patent Application: At least claims 42-44, 50, 74-76, 106-108, and 138-140 include a "box-counting dimension" feature whereas at least claims 50-81 include a "multi-segment curve" feature. Thus, these claims recite the same or similar concepts as the claims of the '635 Patent Application and the applications leading to the '850 Patent and the '822 Patent.

kk. Upon information and belief, Fractus treated the "multi-segment curve" claim feature as a similar feature to the "space-filling curve" claim feature.

ll. The '462 Patent Application is being examined by Examiner Hoang V. Nguyen ("Examiner Nguyen"). Examiner Nguyen also examined the '635 Patent Application and the applications leading to the '850 Patent and the '822 Patent.

mm. On May 18, 2009, a Notice of Allowance was mailed allowing claims 18-145 of the preliminary amendment dated April 21, 2009.

nn. On or around September 21, 2009, Fractus was provided a draft of the information in the preceding sub-paragraphs discussing the withholding of the '114 Patent from Examiner Nguyen in the prosecution of the applications in the Space Filling Miniature Patent Family.

oo. On September 23, 2009, Mr. Walker filed a Petition for Withdrawal from Issue under 37 C.F.R. 1.313(c)(2), indicating that withdrawal was necessary so that a Request for Continued Examination and an Information Disclosure Statement could be filed under 37 C.F.R. 1.97. The Information Disclosure Statement filed with the Petition for Withdrawal cited the '114

Patent (Shoemaker reference) and an Office Action dated October 4, 2004 issued by Examiner Wimer of the USPTO in the prosecution of the application leading to the '675 Patent, as described in detail above in subparagraph (n).

pp. On September 30, 2009, the USPTO Office of Petitions granted the Petition for Withdrawal dated September 23, 2009.

qq. Examiner Nguyen recognized the materiality of the '114 Patent (Shoemaker reference) to the claims with the "multi-segment curve" and the "box counting dimension." In particular, on October 28, 2009, Examiner Nguyen mailed an office action in the prosecution of the '462 Patent Application. This office action rejected many claims under 35 U.S.C. 102(b) as being anticipated by the '114 Patent as follows, in part (highlighting added):

Regarding claim 50, Shoemaker (Figures 2, 8, 9) discloses an antenna comprising a radiating element 20 at least a portion of which is defined by a multi-segment curve, each of said segments being spatially arranged such that no two adjacent and connected segments form another longer straight segment and none of said segments intersects with another segment other than at the beginning and at the end of said multi-segment, irregular curve to form a closed loop; wherein the multi-segment curve has a box counting dimension larger than one; wherein the antenna radiates at multiple different operating wavelengths; wherein at least one of the operating wavelengths corresponds to an operating wavelength of a cellular telephone system (col 6, lines 47-53); and wherein said multi-segment curve is shaped so that the arrangement of a portion of said multi-segment curve including bends is not self-similar with respect to the entire multi-segment curve.

rr. The October 28, 2009 Office Action also rejected other claims under 35 U.S.C. 103(a) as being unpatentable over the '114 Patent (Shoemaker reference) as follows, in part:

Regarding claims 19, 20, 24, 25, 27, 28, 40, 41, 51, 52, 56, 57, 59, 60, 72, 73, 83, 84, 88, 89, 91, 92, 104, 105, 115, 116, 120, 121, 123, 124, 136 and 137, Shoemaker discloses the claimed invention wherein the antenna is adapted to radiate and receive electromagnetic waves across at least two cellular phone system frequency bands. It would have been an obvious matter of design choice to configure Shoemaker's antenna to radiate and receive electromagnetic waves across at least three, four or even five cellular phone system frequency bands as needed to accommodate a variety of different applications.

ss. The October 28, 2009 Office Action is significant. When the '114 Patent (Shoemaker reference) was withheld in an earlier case of the Space-Filling Miniature family, Examiner Nguyen found certain claims allowable because of the feature of the "box-counting dimension [being] larger than one" (highlighting added):

2. The following is an examiner's statement of reasons for allowance:

Regarding claim 2, Cohen (US 6,140,975) discloses an antenna having at least one portion shaped as a space-filling curve (SFC), the SFC including at least ten connected straight segments, wherein the segments are each smaller than a tenth of the operating free-space wavelength of the antenna and the segments are spatially arranged such that no two adjacent and connected segments form another longer straight segment, wherein none of the segments intersect with another segment other than to form a closed loop, wherein each pair of the adjacent segments forms a corner, and wherein any portion of the curve that is periodic along a fixed straight direction of space is defined by a non-periodic curve that includes at least ten connected segments in which no two adjacent and connected segments define a straight longer segment. Cohen, however, fails to specifically teach that the SFC has a box-counting dimension larger than one, wherein the box-counting dimension is calculated as the slope of a straight portion of a log-log graph, wherein the straight portion is a straight segment over at least an octave of scales on the horizontal axes of the log-log graph.

(4-11-2005 Notice of Allowance for the '635 Patent Application). Now, with the '114 Patent (Shoemaker reference) no longer being withheld from Examiner Nguyen, Examiner Nguyen has

determined that the ‘114 Patent (Shoemaker reference) discloses the feature of the “box-counting dimension [being] larger than one.”

tt. Because of the relatedness of the claims of the applications of the Space Filling Miniature Patent Family and the ‘462 Patent Application, and because Examiner Nguyen used the ‘114 Patent to reject claims of the ‘462 Patent Application, Examiner Nguyen would have wanted to know of the ‘114 Patent and the Office Action dated October 4, 2004 during his examination of the ‘635 Patent Application and the applications leading to the ‘850 Patent and the ‘822 Patent.

uu. As identified in the above subparagraphs, the ‘114 Patent and the rejections based thereupon (received in the prosecution of the application leading to the ‘675 Patent) were highly material to claims of the ‘635 Patent Application, the ‘850 Patent, and the ‘822 Patent:

- **There were common claim features in each of the patent applications:** Each of the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent, and the ‘822 Patent include or included common claim features of the “space-filling curve” and the “box-counting dimension” (which applicants sometimes referred to as a “grid-dimension” or a “grid dimension curve” – where the “grid-dimension” is greater than one).
- **Two different examiners examined the patent applications:** Examiner Wimer examined the application leading to the ‘675 Patent whereas Examiner Nguyen examined the ‘635 Patent Application and the applications leading to the ‘850 Patent and the ‘822 Patent.
- **The First Examiner found that the ‘114 Patent disclosed the common claim features:** On October 4, 2004, in the application leading to the ‘675 Patent, Examiner Wimer indicated that both of the above-identified common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) are disclosed by a single reference, the ‘114 Patent. At that time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were present in the co-pending ‘635 Patent Application.

- **The Second Examiner, unaware of the ‘114 Patent or the First Examiner’s rejections, found that the cited art did not disclose the common claim features:** On December 13, 2004, in the ‘635 Patent Application, Examiner Nguyen, unaware of the ‘114 Patent or Examiner Wimer’s rejection based thereupon, identified claims with a “box-counting dimension greater than one” as allowable – a finding specifically contrary to Examiner Wimer’s finding for the exact same claim feature on October 4, 2004.
- **Applicants presented an amendment to the common claim features to the First Examiner in attempts to overcome the ‘114 Patent:** On January 6, 2005, in the application leading to the ‘675 Patent, Joseph Sauer of Jones Day Second Amended the “space-filling” curve claims in an attempt to distinguish them from the ‘114 Patent. Specifically, Joseph Sauer Second Amended them to require the “space-filling curve” to include at least “two-hundred segments.” At that time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were still present in the co-pending ‘635 Patent Application.
- **Applicants took claims with the common claim features from the Second Examiner:** On March 17, 2005, in the ‘635 Patent Application, Joseph Sauer of Jones Day took claims that Examiner Nguyen identified as allowable, namely those with a “box-counting dimension greater than one” – the same claim feature that Examiner Wimer found was disclosed by the ‘114 Patent on October 4, 2004.
- **The First Examiner found that the ‘114 Patent disclosed the common claim features – even as further Second Amended:** On April 7, 2005, in the application leading to the ‘675 Patent, Examiner Wimer again indicated that both of the above-identified common claim features (the “space-filling curve” feature and “box-counting dimension” feature) are disclosed by a single reference, the ‘114 Patent. At that time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were still present in the co-pending ‘635 Patent Application.
- **Applicants presented further amendments to the common claim features to the First Examiner in attempts to overcome the ‘114 Patent:** In the prosecution of the application leading to the ‘675 Patent, to ultimately overcome the highly material ‘114 Patent, at least two requests for continued examinations (RCEs) were filed and further amendments were made specifying that the size of the segments in the “space-filling curve” were less than “34 mm” and that the antenna operated in FM bands.
- **When the Second Examiner is finally notified of the ‘114 Patent in a continuation application, the Second Examiner rejects claims with the common claim features as being anticipated by the ‘114 Patent:** On

September 23, 2009, Examiner Nguyen is finally informed of the '114 Patent in a continuation application of the Space Filling Miniature Patent Family. On October 28, 2009, Examiner Nguyen rejects multiple claims with the common claim features (including the "box-counting dimension [being] larger than one" feature) as being anticipated by the '114 Patent.

vv. As identified in the above subparagraphs, the intent to deceive Examiner Nguyen and the USPTO by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus Common Inventor Group (the "Group Having a Duty of Candor") is also apparent based on the following pattern of conduct:

- **There were common claim features in each of the patent applications:** Each of the '675 Patent, the '635 Patent Application, the '850 Patent, and the '822 Patent include or included common claim features of the "space-filling curve" and the "box-counting dimension" (which applicants sometimes referred to as a "grid-dimension" or a "grid dimension curve" – where the "grid-dimension" is greater than one).
- **Two different examiners examined the patent applications:** Examiner Wimer examined the application leading to the '675 Patent whereas Examiner Nguyen examined the '635 Patent Application and the applications leading to the '850 Patent and the '822 Patent.
- **One or more of the Group Having a Duty of Candor established a practice of cross-citing references in the patent applications and then intentionally stopped:** One or more of the Group Having a Duty of Candor recognized that the application leading to the '675 Patent and the '635 Patent Application are related by citing the same references in both applications. This established and repeated practice of citing the same references in both cases ceased after the '114 Patent and other prior art references were used to reject claims in the application leading to the '675 Patent.
- **One or more of the Group Having a Duty of Candor was put on specific notice of the materiality of the '114 Patent when the First Examiner found that the '114 Patent disclosed the common claim features:** On October 4, 2004, in the application leading to '675 Patent, Examiner Wimer's rejection indicated that both of the above-identified common claim features ("space-filling curve" feature and "box-counting dimension" feature) are disclosed by a single reference, the '114 Patent.
- **One or more of the Group Having a Duty of Candor recognized their duty of disclosure by citing the '114 Patent in a less relevant application;**

- however, they did not cite the ‘114 Patent to the Second Examiner in an application in which it was highly relevant:** On December 13, 2004, one or more of the Group Having a Duty of Candor cited the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in United States Patent Application No. 10/963,080 entitled “Multilevel Antenna,” which did not include the common claim features. However, they did not cite the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in the ‘635 Patent Application, which did include the common claim features.
- **One or more of the Group Having a Duty of Candor was presented with at least five distinct opportunities to disclose the ‘114 Patent to the Second Examiner, but intentionally chose not to act on each of these opportunities:** Five distinct opportunities served as prompting reminders to disclose the ‘114 Patent and the rejections based thereupon to Examiner Nguyen in the examination of the ‘635 Patent Application, including: (1) an October 4, 2004 rejection by Examiner Wimer in the application leading to the ‘675 Patent, indicating that the ‘114 Patent disclosed the common claim features, (2) a December 13, 2004 Office Communication by Examiner Nguyen in the ‘635 Patent Application, indicating he was unaware of the ‘114 Patent, (3) a January 6, 2005 amendment to the common claim features presented to Examiner Wimer in the application leading to the ‘675 Patent in attempts to overcome the ‘114 Patent, (4) a March 17, 2005 taking of claims with the common claim feature from Examiner Nguyen in the ‘635 Patent Application, and (5) an April 7, 2005 rejection by Examiner Wimer in the application leading to the ‘675 Patent, indicating that the amendment to the common claim features still did not overcome the ‘114 Patent.
 - **Despite the knowledge of the ‘114 Patent, the knowledge of the rejections based thereupon, and the knowledge that the common claim features had to be Second Amended to overcome the ‘114 Patent, one or more of the Group Having a Duty of Candor did not inform the Second Examiner of the ‘114 Patent or the rejections based thereupon; rather they took claims with the common claim features from the Second Examiner:** On March 17, 2005, in the ‘635 Patent Application, Joseph Sauer of Jones Day took claims that Examiner Nguyen identified as allowable, namely those with a “box-counting dimension greater than one” – the same claim feature Examiner Wimer found was disclosed by the ‘114 Patent. One or more of the Group Having a Duty of Candor took these claims knowing that Examiner Wimer believed that another reference, the ‘114 Patent, disclosed such claim features, and knowing that Examiner Nguyen did not know of the ‘114 Patent or Examiner Wimer’s rejection based thereupon.
 - **One or more of the Group Having a Duty of Candor never disclosed the ‘114 Patent to the Second Examiner despite continued difficulties with the ‘114 Patent in the application with the First Examiner:** Ultimately, the Group Having a Duty of Candor never disclosed the ‘114 Patent or Examiner

Wimer's rejections based thereupon to Examiner Nguyen in either the '635 Patent Application or the applications leading to the '850 Patent and the '822 Patent. This is despite the fact that claims in the application leading to the '675 Patent had to be even further Second Amended.

ww. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

xx. Because the highly material '114 Patent and Examiner Wimer's rejections based thereupon were intentionally withheld from the prosecution of the Space Filling Miniature Patent Family (namely, Examiner Nguyen), one or more of, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group deceived Examiner Nguyen and the USPTO. As a result, all of the patents in the Space Filling Miniature Patent Family are unenforceable due to inequitable conduct.

yy. The USPTO has a general rule in which for a "continuation application," an "examiner will consider information which has been considered by the Office in a parent application." MPEP 609.02. This rule, however, does not apply to the facts of the preceding subparagraphs. Because the '114 Patent and the rejections based thereupon were never provided in the '635 Patent Application (the parent application of the '850 Patent and the '822 Patent), they were also not considered in the applications leading to the '850 Patent and the '822 Patent.

zz. Any inequitable conduct that occurred in the '635 Patent Application would spread to children that claimed priority to such an application. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del.

2006) *aff'd*, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007). Because the same claim features (e.g., the “space-filling curve” claim feature and the “box-counting dimension greater than one” claim feature) included in the ‘635 Patent Application were also included in the ‘850 Patent and the ‘822 Patent, the inequitable conduct with respect to such claim features in the ‘635 Patent Application infected the ‘850 Patent and the ‘822 Patent. Additionally, the failure to cite the ‘114 Patent and rejections based thereupon in the prosecution of the applications leading to the ‘850 Patent and the ‘822 Patents separately constitutes a basis of inequitable conduct with respect to the ‘850 Patent and the ‘822 Patent.

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld European Prosecution Communications for EP Application No. 00909089.5 in the Prosecution of the ‘850 Patent, the ‘822 Patent, and the Parent Application of the ‘850 Patent and the ‘822 Patent.

184. The ‘850 Patent and the ‘822 Patent are additionally unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information received in a related foreign Fractus application as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff’s Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. The ‘635 Patent Application (of the Space Filling Miniature Patent Family) purportedly claims priority to Patent Cooperation Treaty (“PCT”) Application No. EP00/00411. European Patent (“EP”) Application No. 00909089.5 also purportedly claims priority to PCT Application No. EP00/00411. Accordingly, EP Application No. 00909089.5 was a foreign counterpart to the ‘635 Patent Application of the Space Filling Miniature Family.

c. In EP Application No. 00909089.5, multiple communications were received from and sent to the European Patent Office (“EPO”) by individuals from the Spanish law firm of Herrero & Asociados. Among other things, the EPO issued multiple rejections for then-pending “space-filling curve” and “box-counting dimension” claims, pointing to a “Lack of Clarity,” a “Lack of Disclosure,” and a lack of “Novelty and Inventive Step.” The majority of the prosecution of EP Application No. 00909089.5 took place earlier in time (e.g., 2003, 2004, and early 2005) than the U.S. prosecution of the ‘635 Patent Application (beginning in late 2004/early 2005). However, as discussed more fully below, those owing a duty of candor and good faith to the USPTO withheld these communications with the EPO from the USPTO.

d. Jones Day attorney, Roland Brachmann, represented Fractus in EP Application No. 00909089.5. Furthermore, upon information and belief, there were communications between one or more of Joseph Sauer of Jones Day and/or David Maiorana of Jones Day, who were involved in the prosecution of the ‘635 Patent Application for Fractus in the United States, and those individuals (including individuals from the Spanish law firm of Herrero & Asociados and Roland Brachman) involved with the prosecution of EP Application No. 00909089.5.

e. As examples of the communications in the preceding subparagraph, on November 15, 2004 (file stamped date by the USPTO) in the prosecution of the ‘635 Patent Application, prior to a FAOM, Joseph Sauer of Jones Day had the feature of “adjacent segments can be optionally rounded or smoothed” deleted from the claims. This exact same feature was removed from the claims in the EP Application No. 00909089.5 on December 16, 2004, shortly before EP Application No. 00909089.5 was scheduled for an oral proceeding. Upon information and belief, such an identical amendment to the claims could not have occurred absent

communications between one or more of Joseph Sauer of Jones Day and/or David Maiorana of Jones Day and those individuals involved with the prosecution of EP Application No. 00909089.5.

f. Additionally, as described more fully in the subparagraphs below, one or more of the inventors of the Fractus Common Inventor Group, Roland Brachmann of Jones Day, Joseph Sauer of Jones Day and/or David Maiorana of Jones Day decided to submit at least one of the EPO communications from the prosecution of EP Application No. 00909089.5 to the USPTO. Upon information and belief, such a submission could not have been made absent communications between one or more of Joseph Sauer of Jones Day and/or David Maiorana of Jones Day and those individuals involved with the prosecution of EP Application No. 00909089.5.

g. Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, and David Maiorana of Jones Day, had a duty of candor and good faith in dealing with the USPTO, which included a duty of disclosure of material information to the USPTO. Additionally, as identified in Paragraph 183, inventors from the Fractus Common Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty of disclosure of material information to the USPTO. At a minimum, the duties described in the two preceding sentences required disclosure of material information in the ‘635 Patent Application as well as in the applications leading to the ‘850 Patent and the ‘822 Patent.

h. On February 7, 2003, the EPO issued an examination report in EP Application No. 00909089.5, rejecting then-pending “box-counting dimension” and “space-filling curve” claims. Amongst the rejections in the EPO examination report was an Article 84 “Lack of Clarity” rejection as follows (emphasis in original):

The definition of the so called **box-counting dimension** is neither clearly defined in Claim 2 nor in the description (see page 3, lines 19-25). Therefore no examination can be performed.

Upon information and belief, a rejection under Article 84 at the EPO is analogous to a rejection for indefiniteness under 35 U.S.C. §112 at the USPTO.

i. In this February 7, 2003 examination report for EP Application No. 00909089.5, the EPO additionally indicated that there was a “Lack of Novelty” and “Lack of Inventive Step” in the claims, relying on Publication WO 9706578 (listing Cohen as inventor) as a key reference in both the “Lack of Novelty” and “Lack of Inventive Step” rejections. Upon information and belief, a rejection for “Lack of Novelty” at the EPO is analogous to a rejection under 35 U.S.C. §102 at the USPTO, and a rejection for “Lack of Inventive Step” at the EPO is analogous to a rejection under 35 U.S.C. §103(a) at the USPTO.

j. On August 14, 2003, in a “Reply to Examination Report” for EP Application No. 00909089.5, Fractus’ foreign patent attorneys from Herrero & Asociados made arguments responsive to the Lack of Clarity and the Lack of Novelty and Inventive Step rejections. Specifically, in response to the Lack of Clarity rejections, Fractus’ foreign patent attorneys from Herrero & Asociados made at least the following arguments concerning the “box-counting dimension” claim feature:

The Examiner should bear in mind that the box-counting-dimension has been described in many technical publication and textbooks well before the priority date, which demonstrates that said concept is very well known to those skilled in the art. As an example of discussion upon box-counting dimension, reference could be made to the publication “D.A.Russell, J.D.Hanson, E.Ott, *Dimension and Strange Attractors*, *Phys.Rev. Lett.* 45 (1980) 1175-1178”.

Further information about the box-counting-dimension can be found in the following internet links:

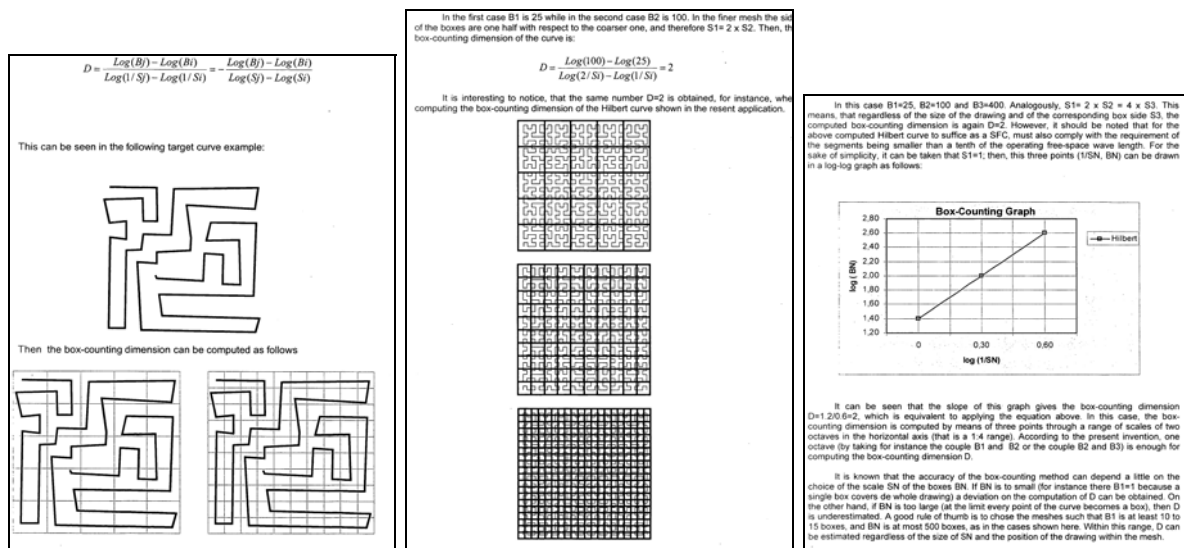
<http://www.redbrick.dcu.ie/~bolsh/thesis/node16.html>

<http://www.redbrick.dcu.ie/~bolsh/thesis/node22.html>

Some references that discuss this box-counting method are: D.A.Russell, J.D.Hanson, E.Ott, "Dimension and Strange Attractors", Phys.Rev. Lett. 45 (1980) 1175-1178 ; Paul So, Ernest Barreto, and Brian R. Hunt, "Box-counting dimension without boxes: Computing D0 from average expansion rates", Physical Review E (Statistical Physics, Plasmas, Fluids, and Related Interdisciplinary Topics) -- July 1999 -- Volume 60, Issue 1, pp. 378-385 (See Attachment I). A software code to compute the box-counting dimension from a graph can be found in:

<http://www.sewanee.edu/physics/PHYSICS123/BOX%20COUNTING%20DIMENSION.html>

Upon information and belief, with the above arguments, Fractus' foreign patent attorneys from Herrero & Asociados were attempting to convince the EPO that a box-counting dimension feature was "very well known." After providing the above argument, the following excerpted tutorial was provided to the EPO as demonstrating "one way of computing the box-counting dimension":



Upon information and belief, among other things, this tutorial explained how Fractus believed a box-counting dimension could be calculated. In the excerpt farthest to the left, the tutorial explained how a box-counting dimension was calculated for a "target curve." In the excerpt in the middle, the tutorial explained the box-counting dimension of the "Hilbert curve shown in the [p]resent application." In the excerpt on the right, the tutorial explained a log-log "box-counting graph."

k. In the August 14, 2003 Reply to Examination Report for EP Application No. 00909089.5, Fractus' foreign patent attorneys from Herrero & Asociados additionally attempted to distinguish the "box-counting dimension" feature of the claims from Publication WO 9706578's calculation of a "fractal dimension," arguing (Emphasis in original, the D1 reference being Publication WO 9706578, listing Cohen as inventor):

In the present application, the so called box-counting dimension is used to characterized the space-filling curves. As it is clearly understood for those skilled in the art, the above definition of 'fractal' dimension of D1 is not the same definition of the box-counting dimension used in the present application (see D.A.Russell, J.D.Hanson, E.Ott, *Dimension and Strange Attractors*, *Phys.Rev. Lett.* 45 (1980) 1175-1178 for a discussion upon box-counting dimension).

Furthermore, in claim 1 of the present application the space-filling curves are characterised in that "said SFC features a box-counting dimension larger than one...", that is, the box-counting dimension is used to specifically identify a particular set of SFC curves. Such a feature of a box-counting dimension is therefore claimed to play a key role in the miniaturization features of said particular set of SFC antennas when said dimension is larger than one.

l. When Fractus' foreign patent attorneys from Herrero & Asociados were making arguments, providing references, and providing the tutorial in the August 14, 2003 Reply to Examination Report, the exact same "box-counting dimension" and "space-filling curve" claim features were present in both the '635 Patent Application and EP Application No. 00909089.5. In particular, on August 14, 2003, for EP Application No. 00909089.5 the "space-filling curve" and the "box-counting dimension larger than one" claim features were present in at least Independent Claim 1 (with the claim features from Claim 2 being incorporated into Claim 1). Additionally, on August 14, 2003 for the '635 Patent Application, the "space-filling curve" feature was present in Claim 1, and the "box-counting dimension larger than one" feature was present in dependent Claim 2 — both Claims 1 and 2 being the originally filed claims.

m. Because the same "space-filling curve" and "box-counting dimension" claim features were contained in EP Application No. 00909089.5 and United States applications for the Space Filling Miniature Patent Family, a United States patent examiner would have wanted to review and consider the references cited by Fractus' foreign patent attorneys from

Herrero & Asociados to the EPO on August 14, 2003. Further, a United States patent examiner would have wanted to review and consider a copy of the tutorial provided by Fractus' foreign patent attorneys from Herrero & Asociados to the EPO on August 14, 2003. Moreover, a United States patent examiner would have wanted to review and consider a copy of the arguments from Fractus' foreign patent attorney from Herrero & Asociados to the EPO concerning how Publication WO 9706578's "fractal dimension" was purportedly different than a "box-counting dimension." Particularly, a United States patent examiner would use the information in the preceding sentences of this subparagraph to establish a prima facie case of unpatentability of claims (namely, the "space-filling curve" claims and "box-counting dimension" claims) in the applications of the Space Filling Miniature Patent Family. Therefore, the information provided to the EPO in the August 14, 2003 "Reply to Examination Report" was material to the "space-filling curve" claim features and "box-counting dimension" claim features in the Space Filling Miniature Patent Family.

n. Upon information and belief, inventors from the Fractus Common Inventor Group were involved with this August 14, 2003 "Reply to Examination Report." Specifically, the technical nature of these arguments and "box-counting dimension" tutorial suggest that more than just Fractus' foreign patent attorneys from Herrero & Asociados developed the arguments. Moreover, upon information and belief, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group received copies of the August 14, 2003 "Reply to Examination Report." However, as discussed in more detail below, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group withheld the August 14, 2003 Reply

to Examination Report from Examiner Nguyen in his examination of the application of the Space Filling Miniature Patent Family.

o. The materiality of the August 14, 2003 Reply to Examination Report in EP Application No. 00909089.5 and knowledge of such materiality by one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group is apparent. Upon information and belief, recognizing the “Lack of Clarity” problems with the “box-counting dimension” feature of the claims in EP Application No. 00909089.5, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group made a decision to embed the “box-counting dimension” tutorial of August 14, 2003 in new Fractus patent applications with claims directed to the “space-filling curve” feature.

p. A specific example of a new application referenced in the preceding subparagraph is the application leading to the ‘675 Patent (discussed in paragraph 183). Joseph Sauer of Jones Day filed the application leading to the ‘675 Patent on April 24, 2003, shortly after the tutorial was provided to the EPO on August 14, 2003. The ‘675 Patent included the August 14, 2003 tutorial embedded directly in the specification. However, upon information and belief, knowing that the term “box-counting dimension” was unclear and knowing that claims with the “box-counting dimension” feature received multiple “Lack of Clarity” rejections in the EPO, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group chose to use a new word to describe the “box-counting dimension” concept — “grid dimension.” Furthermore, to describe the concept of a “box-counting dimension being greater than one,”

one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group chose to use a new term — “grid-dimension curve.”

q. Although the application leading to the ‘675 Patent never used the term “box-counting” dimension, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group knew that the “box-counting dimension” and the new “grid dimension” were the same thing. As described in paragraph 183, in a January 6, 2005 response for the application leading to the ‘675 Patent, Joseph Sauer of Jones Day argued that a particular reference, the ‘114 Patent, did not disclose the “grid dimension curve” or “box-counting dimension” claim feature, indicating the “box-counting dimension” is a “similar dimension criteria” to the “grid dimension” as follows (emphasis added).

The concept of a grid dimension curve is specifically defined in the written description as “a curve geometry having a grid dimension that is greater than one (1).” (Detailed Description, page 29, lines 8-9). A method for calculating the grid dimension of a curve geometry is set forth in the specification beginning at page 28, line 15. ***The Shoemaker reference makes no reference to the grid dimension of the antenna structure (nor does it refer to any other similar dimensional criteria, such as a box counting dimension.)***

Therefore, by supplying the August 14, 2003 tutorial in a new application, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group specifically recognized the importance of providing a United States patent examiner this tutorial in order to understand the “box-counting dimension” claim feature.

r. The materiality of this August 14, 2003 tutorial became further apparent. As indicated above with reference to the ‘675 Patent, when the August 14, 2003 tutorial was

included in a specification, the USPTO (particularly Examiner Wimer) found that art (e.g., the ‘114 Patent), included the so-called “box-counting dimension greater than one” or “grid-dimension curve” claim feature.

s. Subsequent to the August 24, 2003 filing of the application leading the ‘675 Patent, on December 8, 2003, in the prosecution of ‘635 Patent Application in the United States (of the Space Filling Miniature Patent Family), one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group decided to submit certain information to the USPTO concerning the prosecution of EP Application No. 00909089.5.

t. More particularly, having received a copy of the February 7, 2003 Examination Report and a copy of the August 14, 2003 Reply to Examination Report (which included the tutorial), one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group decided to selectively submit only the February 7, 2003 Examination Report and not the August 14, 2003 Reply to Examination Report (which included the tutorial) and not the references cited in the August 14, 2003 Reply to Examination Report. Specifically, on December 8, 2003, in the prosecution of the ‘635 Patent Application, David Maiorana of Jones Day provided an IDS, which lists “European Patent Office Communication from the corresponding European patent application dated February 7, 2003 (10 pgs.),” which purportedly contains the February 7, 2003 Examination Report.

u. One or one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor

Group decided not to provide the August 14, 2003 Reply to Examination Report (which included the tutorial) to the USPTO despite:

- a decision by one or more of the same group of people that the tutorial provided in the August 14, 2003 Reply to Examination Report needed to be placed in new Fractus applications (in particular, the application leading to the ‘675 Patent) with “space-filling curve” features in order to explain to an examiner how the claim feature of “the box-counting dimension greater one” or so-called “grid dimension curve” was allegedly different than the prior art;
- a decision by one or more of the same group of people that the tutorial provided in the August 14, 2003 Reply to Examination Report needed to be supplied to the EPO in attempts to explain that one of ordinary skill in the art purportedly could understand the “box-counting dimension greater than one” claim feature and to argue that this claim feature was purportedly novel; and
- the United States Patent Office recommending that applicants “carefully examine . . . [t]he closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.” 37 C.F.R. §1.56(a)(2).

v. On October 28, 2004, in EP Application No. 00909089.5, the EPO issued a Summons to Attend Oral Proceedings (“Summons”). An annex to the Summons articulated the EPO’s rejections, including why it believed there was a “Lack of Clarity,” a “Lack of Disclosure,” and lack of “Novelty and Inventive Step” concerning the “space-filling curve” and “box-counting dimension” claim features. In the “Lack of Clarity” rejections, the EPO indicated the following (emphasis in original):

- 5.2 Feature (f) of Claim 1 by defining a **box-counting dimension larger than one** is still not clear.

Applicants have argued in their letter of 14.8.2003 (pages 2-3) the three documents D7-D9 would give the **box-counting dimension larger than one**. However the Examining Division cannot find in documents D7 and D8 such a clear definition whereas the content of later published document D9 cannot be taken into account because it does not form prior art in the meaning of Article 54 (2) EPC.

It is noted that the formulation of feature (f) of present Claim 1 could be found only in originally filed Claim 2 with the additional definition "a box-counting dimension larger than one, being said box-counting dimension computed **as usual** ..." which words "as usual" were suppressed in the present formulation of feature (f). However these words could only give the impression that this definition was uniquely defined which is known to the person skilled in the art. However there is no further explanation in the originally filed description, moreover no document is cited for it therein.

Thus, the EPO was explaining that the "box-counting dimension larger than one" claim feature was "still not clear." In particular, the EPO noted that references cited by Fractus' foreign patent attorneys from Herrero & Asociados did not provide a "clear definition" of this claim feature.

w. In the October 28, 2004 Summons, the EPO additionally provided a new "Lack of Disclosure" rejection, indicating the following (emphasis in original):

6. Lack of disclosure (Article 83 EPC)

- 6.1 According to paragraph 5.2 above feature (f) of Claim 1 is not clear and the applicants have argued that box-counting dimension is a well-known mathematical descriptor (see their letter of 14.8.2003, page 2, third last paragraph), but have yet not proved on the basis of prior art documents that feature (f) was known to the skilled person at the filing date of the application.
- 6.2 Moreover, the applicants have argued in their letter of 14.8.2003, page 11, second paragraph, that in document D1 there are several definitions of fractal dimensions which are not consistent and coherent among them. This shows that there are many different definitions possible for space-filling curves and, respectively, for fractal curves. Therefore, it is totally unclear what the person skilled in the art should understand when reading feature (f) of Claim 1 where a **box-counting dimension larger than one** is defined, **being said box-counting dimension computed as the slope of the straight portion of a log-log graph, wherein such a straight portion is substantially defined as a straight segment over at least an octave of scales on the horizontal axes of the log-log graph.**
- 6.3 It is concluded by the Examining Division that the claimed invention is not disclosed sufficiently clear and complete, thus the person skilled in the art could not carry out the claimed invention on the filing date of the present application (Article 83 EPC).

Thus, in addition to the Lack of Clarity rejection, the EPO was supplying a Lack of Disclosure (Article 83) rejection, indicating that "the person skilled in the art could not carry out the claimed

invention” with this “box-counting dimension” claim feature. Upon information and belief, a rejection under Article 83 at the EPO is analogous to an enablement rejection under 35 U.S.C. §112 at the USPTO.

x. Furthermore, in its October 28, 2004 Summons, the EPO maintained its “Lack of Novelty and Inventive Step” rejections based on Publication WO 9706578 (listing Cohen as inventor). For example, the EPO noted the following (the D1 reference being Publication WO 9706578, listing Cohen as inventor):

It was already noted above that in document D1 the special term "fractal antennas" is used, however, the antennas as shown in the figures, e.g. Figs. 5B, 7C1, 7C2, 8B and 8C show a similar construction as the space-filling antennas shown in the figures of the present application (e.g. Figs. 3-7), therefore, the opinion of the Examining Division is maintained that the "fractal antennas" represent the same kind of mathematical curves which are only defined in the present application in a different way as "space-filling curves".

y. Because the same “space-filling curve” features and “box-counting dimension” features were contained in EP Application No. 00909089.5 and United States applications for the Space Filling Miniature Patent Family, a United States patent examiner would have wanted to review and consider a copy of the rejections provided by the EPO in the October 28, 2004 Summons. In particular, a United States Patent Examiner would have wanted to see the new “Lack of Disclosure” rejection. Furthermore, a United States Patent Examiner would have wanted to see how the EPO was continuing to maintain its rejections — even after submission of references and arguments by Fractus’ foreign patent attorneys from Herrero & Asociados. Particularly, a United States patent examiner would use the information in the preceding sentences of this subparagraph to establish a prima facie case of unpatentability of claims (namely, the “space-filling curve” claims and “box-counting dimension” claims) in the applications of the Space Filling Miniature Patent Family. Therefore, the information in the preceding subparagraphs concerning the October 28, 2004 Summons was material to the “space-

filling curve” claim features and the “box-counting dimension” claim features in the Space Filling Miniature Patent Family in the United States.

z. Upon information and belief, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group received a copy of the October 28, 2004 Summons. However, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group withheld the information in the October 28, 2004 Summons from the USPTO.

aa. On December 15, 2004, in EP Application No. 00909089.5, Fractus’ foreign patent attorneys from Herrero & Asociados provided a “Letter Dealing with Oral Proceedings,” making further arguments responsive to the EPO’s “Lack of Clarity” and “Lack of Novelty and Inventive Step” rejections. In the arguments responsive to the EPO’s “Lack of Clarity” rejections, Fractus’ foreign patent attorneys from Herrero & Asociados made further arguments and presented further references as follows (the EPO indicates that the art cited in the response was provided on December 16, 2004, a day after being cited in the Letter Dealing with Oral Proceedings):

(3.1.2) In addition to documents D7-D9 previously submitted, we now enclose the following documents, in order to illustrate that the box-counting dimension is a well-

defined and well-known concept, frequently used for characterising this kind of curves:

- D10: Heinz-Otto Peitgen, *et al.*, "CHAOS AND FRACTALS – New Frontiers of Science" (1992), pp. 212-216, 387-388
- D11: Paul S. Addison, "FRACTALS AND CHAOS – An Illustrated Course" (Institute of Physics Publishing, Bristol and Philadelphia; IOP Publishing 1997), pp. 30, 31 & 33
- D12: Kenneth Falconer, "FRACTAL GEOMETRY – Mathematical Foundations and Applications" (2nd edition) (John Wiley & Sons. Ltd., 2003) (*the first edition is from 1990*)

(3.1.3) It is clear from the above documents
(cf., for example:

D10, page 212, four last lines 4-8 after Fig.4.29: *"The box-counting dimension proposes a systematic measurement, which applies to any structure in the plane..."*

D10, page 214, last paragraph: *"The box-counting dimension is the one most used in measurements in all the sciences. The reason for its dominance lies in the easy and automatic computability by machine. It is straightforward to count boxes and to maintain statistics allowing dimensional calculation. The program can be carried out for shapes with and without self-similarity" (emphasis added).*

D11, page 30: *"The box counting dimension..."*

D12, page 41: *"Box-counting or box dimension is one of the most widely used dimensions. Its popularity is largely due to its relative ease of mathematical calculation and empirical estimation."*

that the box-counting dimension is a well-known feature suitable for characterising highly convoluted curves, applicable both to fractal curves (with self-similarity) and to curves not having a self-similar structure.

Thus, it is respectfully submitted that the feature "box-counting dimension larger than one" is clear to the person skilled in the art.

After citing these references, Fractus' foreign patent attorneys from Herrero & Asociados provided even further references to the EPO, indicating:

(3.2) Just to illustrate the frequent use of the box-counting dimension for characterising or analysing curves in a large number of different technical fields, we submit copies of the following additional documents:

- D13: Yuan Y. Tang, *et al.*, "The Application of Fractal Analysis to Feature Extraction" (1999 IEEE), pp. 875-879
- D14: Vincent Ng, *et al.*, "Diagnosis of Melanoma with Fractal Dimensions" (IEEE TENCON'93 / Beijing), pp. 514-517
- D15: S. Kobayashi, *et al.*, "Estimation of 3D Fractal Dimension of Real Electrical Tree Patterns" (IEEE 1994; Proceedings of the 4th International

Conference on Properties and Applications of Dielectric Materials, July 3-8, 1994, Brisbane, Australia), pp. 359-362

- D16: Jie Feng, *et al.*, "Fractional Box-Counting Approach to Fractal Dimension Estimation", (IEEE 1996; Proceedings of ICPR'96), pp. 854-858
- D17: S. Rouvier, *et al.*, "Fractal Analysis of Bidimensional Profiles and Application to Electromagnetic Scattering from Soils" (1996 IEEE), pp. 2167-2169
- D18: Nirupam Sarkar, *et al.*, "An Efficient Differential Box-Counting Approach to Compute Fractal Dimension of Image" (IEEE Transactions on Systems, Man, and Cybernetics, Vol. 24, No. 1, Jan. 1994), pp. 115-120
- D19: Susan S. Chen, *et al.*, "On the Calculation of Fractal Features from Images" (IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 15, No. 10, Oct. 1993), pp. 1087-1090
- D20: Alan I. Penn, *et al.*, "Fractal Dimension of Low-Resolution Medical Images" (18th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Amsterdam 1996; 4.5.3: Image Pattern Analysis I), pp. 1163-1165
- D21: Fabrizio Berizzi, *et al.*, "Fractal Analysis of the Signal Scattered from the Sea Surface" (IEEE Transactions on Antennas and Propagation, Vol. 47, No. 2, Feb. 1999), pp. 324-338
- D22: Hendrik F.V. Boshoff, "A Fast Box Counting Algorithm for Determining the Fractal Dimension of Sampled Continuous Functions" (1992 IEEE), pp. 43-48

These documents are merely submitted in case the Examiner should wish to see further examples of the frequent use of the box-counting dimension for characterising curves: cf., for example: D16, abstract: *"The most popular estimation approach is based on box-counting"*; D17, page 2167, second column: *"...the well known box counting method was used..."*; etc.

With regard to the lack of "Novelty and Inventive Step" rejections, the Fractus' foreign patent attorneys from Herrero & Asociados argued that (the D1 reference being Publication WO 9706578, listing Cohen as inventor):

D1 does not disclose or suggest any specific restriction on the length of the "segments" making up the ("self-similarity") curves of the antenna structure.

Further, D1 does not disclose or suggest any restrictions on the box-counting dimensions of the ("self-similarity") curves used.

In addition, D1 does not disclose or suggest a patch-antenna.

bb. Because the same "space-filling curve" features and "box-counting dimension" features were contained in EP Application No. 00909089.5 and United States

applications for the Space Filling Miniature Patent Family, a United States patent examiner would have wanted to review and consider a copy of the December 15, 2004 Letter Dealing with Oral Proceedings and the references cited therewith. Particularly, a United States patent examiner would use the information in the preceding sentence of this subparagraph to establish a prima facie case of unpatentability of claims (namely, the “space-filling curve” claims and “box-counting dimension” claims) in the applications of the Space Filling Miniature Patent Family. Therefore, the information in the preceding subparagraph was material to the “space-filling curve” claim features and the “box-counting dimension” claim features in the Space Filling Miniature Patent Family.

cc. Upon information and belief, one or more inventors from the Fractus Common Inventor Group prepared the information for the December 15, 2004 Letter Dealing with Oral Proceedings. Furthermore, upon information and belief, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group received a copy of the information in the December 15, 2004 Letter Dealing with Oral Proceedings. However, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group withheld the information in the December 15, 2004 Letter Dealing with Oral Proceedings from the USPTO.

dd. In January of 2005, in EP Application No. 00909089.5, Fractus representatives, including Jones Day attorney Roland Brachmann and inventor and employee, Carles Puente Baliarda, attended the oral proceedings before the examining division of the EPO. During the oral proceedings, numerous amendments were negotiated to the then-pending “box-counting dimension” claims to overcome the art and other rejections. According to the minutes

of this oral proceeding, novelty in the Second Amended claims over the repeatedly applied Publication WO 9706578 (listing Cohen as inventor) lay in the addition of a “patch antenna parallel to a ground plane” (a featured incorporated from Claim 9) — not the “space-filling curve” features or the “box-counting dimension” features.

ee. Because the same “space-filling curve” features and “box-counting dimension” features were contained in EP Application No. 00909089.5 and United States Space-Filling Miniature Family applications, a United States patent examiner would have wanted to review and consider a copy of the minutes from this oral proceeding, which specifically found that the “space-filling curve” and “box-counting dimension” features were not novel over Publication WO 9706578 (listing Cohen as inventor). Particularly, a United States patent examiner would use the information in the preceding sentence of this subparagraph to establish a prima facie case of unpatentability of claims (namely, the “space-filling curve” claims and “box-counting dimension” claims) in the applications of the Space Filling Miniature Patent Family. Therefore, the information in the minutes from the January 2005 oral proceeding of EP Application No. 00909089.5 was material to the “space-filling curve” claim features and the “box-counting dimension” claim features in the Space Filling Miniature Patent Family.

ff. Upon information and belief, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group received the minutes from the January 2005 oral proceeding (with Roland Brachmann of Jones Day, and Carles Puente Baliarda actually having been present at the oral proceeding). However, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group withheld this information from the USPTO.

gg. The first substantive response in the Space Filling Miniature Patent Family in the United States occurred on March 17, 2005 — after the final January 2005 prosecution oral proceeding in EP Application No. 00909089.5 described in the preceding subparagraphs. Accordingly, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group had ample opportunity to provide the USPTO with material information previously received and/or transmitted to the European Patent office in the prosecution of the EP Application No. 00909089.5. However, because of the prosecution difficulties encountered as identified in the preceding subparagraphs and because of the narrow claims ultimately granted, upon information and belief, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group withheld the material EPO communications in EP Application No. 00909089.5 from the USPTO in its examination of the Space Filling Miniature Patent Family.

hh. The USPTO would have wanted to be made aware of at least the following material communications in EP Application No. 00909089.5, all of which occurred prior to the first substantive response in the Space Filling Miniature Patent Family in the United States:

August 14, 2003 Reply to Examination Report: Fractus supplied the EPO references directed to the “box-counting dimension” feature. Fractus additionally provided the EPO a tutorial on Fractus’ method of calculating a “box-counting dimension.” Fractus additionally made arguments concerning an alleged distinction between the “box-counting dimension” feature of the claims and Publication WO 9706578’s “fractal dimension.”

October 28, 2004 Summons: The EPO issued a Summons. The Summons reiterated the “Lack of Clarity” argument, provided a new “Lack of Disclosure” argument; and maintained a rejection of the “space-filling curve” and “box-counting dimension greater than one claims” based on Publication WO 9706578.

December 15, 2004 Letter Dealing with Oral Proceedings: Fractus filed a Letter Dealing with Oral Proceedings. In this Letter Dealing with Oral Proceedings, Fractus provided further references directed to the “box-counting dimension” feature of the claims. Fractus additionally provided arguments concerning how Publication WO 9706578 allegedly does not disclose the “box-counting dimension” and “patch antenna” feature of the claims.

January 2005 Minutes from Oral Proceedings: Fractus negotiated at Oral proceedings to get claims allowed. The Minutes from the Oral Proceedings indicated that novelty lies in “patch antenna” claim feature — not the “box-counting dimension” claim feature.

However, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors from the Fractus Common Inventor Group never provided any of these communications to the USPTO. Without such communications, Examiner Nguyen at the USPTO determined that the “box-counting dimension greater than one” claim feature was novel — a finding contrary to multiple rejections at the EPO.

ii. Instead of apprising the USPTO of these EPO communications, as indicated in paragraph 183, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group decided to remain silent and take claims that Examiner Nguyen in the United States (in the ‘635 Patent Application of the Space Filling Miniature Family) identified as being allowable in a December 13, 2004 rejection, for example, Claim 2. As indicated in paragraph 183, of the claims identified as being allowable, Examiner Nguyen indicated that the cited references did not include the feature of a “box-counting dimension being greater than one” (e.g., as contained in Dependent Claim 2) — the exact same feature that one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group knew the EPO decided on multiple occasions was disclosed by Publication WO 9706578 (listing

Cohen as inventor) as indicated at a minimum by the October 28, 2004 Summons and minutes from the January 2005 oral proceeding, both of which were not disclosed to Examiner Nguyen.

jj. Given the relatedness of the facts in this paragraph and paragraph 183 concerning the box-counting dimension, the following is a summary of the prosecution of three applications: EP Application No. 00909089.5, the application leading to the ‘675 Patent, and the ‘635 Patent Application. The “box-counting dimension being greater than one” or the so-called “grid-dimension curve” feature was presented in claims to three different examiners as follows:

EP Application No. 00909089.5: On August 14, 2003, in a Reply to Examination Report, Fractus’ foreign patent attorneys from Herrero & Asociados provided the EPO a tutorial on Fractus’ method of calculating a box-counting dimension. Herrero & Asociados additionally argued that the box-counting dimension feature was novel.

Ultimate Outcome: With the supplied tutorial, despite Fractus’ argument to the contrary, the EPO determined that the feature of a space-filling curve with a box-counting being greater than one was not novel.

Application leading to the ‘675 Patent: Concerned about the lack of understanding for the box-counting dimension feature, Fractus adds the tutorial of August 14, 2003 into the application for the ‘675 Patent, changing the term “box-counting dimension” to “grid dimension” and defining a grid-dimension [or box-counting dimension] greater than one as a “grid dimension curve.”

Ultimate Outcome: With the supplied tutorial, despite Fractus’ argument to the contrary, Examiner Wimer at the USPTO determined that the “grid-dimension curve” is not novel, but rather disclosed by the ‘114 Patent. The first rejection was received October 4, 2004 and the second rejection was received April 7, 2005.

Application leading to the ‘675 Patent: On December 15, 2004, without the supplied tutorial or information from the prosecution of the EP Application No. 00909089.5 or the application leading to the ‘675 Patent, Examiner Nguyen indicated that claims with a “box-counting dimension greater than one” feature are allowable.

Ultimate Outcome: Fractus chose not to disclose the tutorial or information that occurred in EP Application No. 00909089.5 or the application leading to the ‘675 Patent, but rather chose to takes the claims identified by Examiner Nguyen as novel — those with the box-counting dimension greater than one.

As seen above, of the three examiners presented with the claim feature of the “box-counting dimension being greater than one,” two found such a feature anticipated or obvious. Both of those examiners were supplied highly material information (including the tutorial). The one examiner, Examiner Nguyen, who was not supplied this material information (including the tutorial) from the prosecution in EP Application No. 00909089.5 or the application leading to the ‘675 Patent determined that this “box-counting dimension being greater than one” was not disclosed by the art of the record.

kk. The communications to and from the EPO in EP Application No. 00909089.5 (the foreign counterpart to the ‘635 Patent) were highly material to the claims of the ‘635 Patent Application, the ‘850 Patent, and the ‘822 Patent:

- **There were common claim features in each of the patent applications:** Each of the EP Application No. 00909089.5, the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent, and the ‘822 Patent include or included common claim features of the “space-filling curve” and the “box-counting dimension” (which Applicants sometimes referred to as a “grid-dimension” or a “grid dimension curve” – where the “grid-dimension” is greater than one).
- **Three different examiners examined these patent applications:** An EPO Examiner examined EP Application No. 00909089.5; Examiner Wimer examined the application leading to the ‘675 Patent; and Examiner Nguyen examined the ‘635 Patent Application, and the applications leading to the ‘850 Patent and the ‘822 Patent.
- **Applicants provided references and a “tutorial” to the EPO Examiner to respond to the EPO Examiner’s indications that the common claim features were unclear:** On August 14, 2003, in EP Application No. 00909089.5, in response to “Lack of Clarity” rejections, Fractus supplied the EPO references directed to the “box-counting dimension” feature. Fractus additionally provided the EPO a tutorial on Fractus’ method of calculating a “box-counting dimension.” Fractus additionally made arguments concerning an alleged distinction between the “box-counting dimension” feature of the claims and Publication WO 9706578’s “fractal dimension.” At this time, the common claim features (“space-filling curve” feature and “box-counting dimension” feature) were present in the co-pending ‘635 Patent Application.

- **Applicants embedded the “tutorial” provided to the EPO Examiner into new U.S. Applications examined by a First U.S. Examiner:** On August 24, 2003, Joseph Sauer of Jones Day filed an application leading to the ‘675 Patent. The specification of the application leading to the ‘675 Patent included the box-counting dimension tutorial supplied to the EPO on August 14, 2003. The term “grid dimension” is substituted for “box-counting dimension.” The application leading to the ‘675 Patent is assigned to Examiner Wimer.
- **Having been provided the “tutorial,” the First U.S. Examiner indicated that the ‘114 Patent disclosed the common claim features:** On October 4, 2004, in the application leading to the ‘675 Patent, Examiner Wimer indicated that the “space-filling curve” claim feature and “box-counting dimension” claim feature were disclosed by a single reference, the ‘114 Patent. At this time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were present in the co-pending ‘635 Patent Application.
- **The EPO Examiner again indicated that common claim features are unclear and that the common claim feature are not novel:** On October 28, 2004, in EP Application No. 00909089.5, the EPO issued a Summons. The Summons reiterated the “Lack of Clarity” arguments, provided a new “Lack of Disclosure” argument; and maintained a rejection of the “space-filling curve” and “box-counting dimension greater than one claims” based on Publication WO 9706578. At this time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were present in the co-pending ‘635 Patent Application.
- **Contrary to findings by the First U.S. Examiner and the EPO Examiner, a Second U.S. Examiner — unaware of the ‘114 Patent, the “tutorial,” or the rejections by the other two examiners — found that the cited art did not disclose the common claim features:** On December 13, 2004, in the ‘635 Patent Application, Examiner Nguyen (unaware of the ‘114 Patent or Examiner’s Wimer’s rejection or the EPO communications of August 14, 2003), identified claims with a “box-counting dimension greater than one” as allowable — a finding specifically contrary to Examiner Wimer’s finding for the exact same claim feature and the EPO’s finding for the exact same claim feature.
- **Applicants provided further references to the EPO Examiner to respond to indications that the common claim features were unclear; and further argued alleged points of novelty:** On December 15, 2004, in EP Application No. 00909089.5, Fractus filed a Letter Dealing with Oral Proceedings. In this Letter Dealing with Oral Proceedings, Fractus provided further references directed to the “box-counting dimension” feature of the claims. Fractus additionally provided arguments concerning how Publication WO 9706578 allegedly does not disclose the “box-counting dimension” and “patch antenna”

feature of the claims. At this time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were present in the co-pending ‘635 Patent Application.

- **The EPO decided that the common claim features are not novel:** In January of 2005, in EP Application No. 0090989.5, Fractus negotiates at Oral proceedings to get claims allowed. The Minutes from the Oral Proceedings indicate that the “box-counting dimension” feature is not novel, but rather the novelty lies in the “patch antenna” feature. At this time, the common claim features (the “space-filling curve” claim feature and the “box-counting dimension” claim feature) were present in the co-pending ‘635 Patent Application.
- **Applicant presented an amendment to the common claim features to the First U.S. Examiner in attempts to overcome the ‘114 Patent:** On January 6, 2005, in the application leading to the ‘675 Patent, Joseph Sauer of Jones Day Second Amended the “space-filling” curve claims in an attempt to distinguish them from the ‘114 Patent. Specifically, Joseph Sauer Second Amended them to require the “space-filling curve” to include at least “two-hundred segments.”
- **Applicant took claims with the common claim features from the Second Examiner:** On March 17, 2005, in the ‘635 Patent Application, Joseph Sauer of Jones Day took claims that Examiner Nguyen identified as allowable, namely those with a “box-counting dimension greater than one” – the same feature that Examiner Wimer previously found was disclosed by the ‘114 Patent and the same feature the EPO determined was not novel.
- **The common claim features were presented to three examiners, and the two examiner that were provided the “tutorial” indicated that the common claim features were not novel:** The “box-counting dimension” claim feature was presented in three applications: EP Application No. 00909089.5, the application leading to the ‘675 Patent, and the ‘635 Patent Application. Of these three applications, the “box-counting dimension” tutorial is withheld from one application, the ‘635 Patent Application. Examiner Nguyen of the ‘635 Patent finds claims allowable because the art allegedly does not disclose the “box-counting dimension” features. However, the other two examiners that were provided the tutorial (1. Examiner Wimer in the application leading to the ‘675 Patent, and 2. The examiners of EP Application No. 0090989.5), reach an opposite conclusion – finding the box-counting dimension feature is not novel.

II. The intent to deceive Examiner Nguyen and the USPTO by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Fractus

Common Inventor Group (the “EPO Group Having a Duty of Candor”) is also apparent by at least the following pattern of conduct:

- **There were common claim features in each of the patent applications:** Each of the EP Application No. 00909089.5, the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent, and the ‘822 Patent include or included common claim features of the “space-filling curve” and the “box-counting dimension” (which applicants sometimes referred to as a “grid-dimension” or a “grid dimension curve” – where the “grid-dimension” is greater than one).
- **Three different examiners examined these patent applications:** An EPO Examiner examined EP Application No. 00909089.5; Examiner Wimer examined the application leading to the ‘675 Patent; and Examiner Nguyen examined the ‘635 Patent Application and the applications leading to the ‘850 Patent and the ‘822 Patent.
- **One or More of the EPO Group Having a Duty of Candor provided references and a “tutorial” to the EPO Examiner, but not to the Second U.S. Examiner:** On August 14, 2003, in a Reply to Examination Report for EP Application No. 00909089.5, Fractus supplied the EPO references directed to the “box-counting dimension” feature. Fractus additionally provided the EPO a tutorial on Fractus’ method of calculating a “box-counting dimension.” However, one or more of the EPO Group Having a Duty of Candor intentionally withheld this information from Examiner Nguyen at the USPTO.
- **One or More of the EPO Group Having a Duty of Candor provided the “tutorial” in a specification to a First U.S. Examiner who determined that the common claim features were not novel, but they did not provide the “tutorial” to the Second U.S. Examiner:** On August 24, 2003, concerned about the EPO “box-counting dimension” rejections, Joseph Sauer of Jones Day filed an application leading to the ‘675 Patent. The specification of the application leading to the ‘675 Patent included the box-counting dimension tutorial supplied to the EPO on August 14, 2003. The term “grid dimension” is substituted for “box-counting dimension.” One ore more of the EPO Group Having a Duty of Candor intentionally continued to withhold the tutorial supplied in the August 14, 2003 examination report from Examiner Nguyen at the USPTO. On October 4, 2004, in the application leading to the ‘675 Patent, Examiner Wimer indicated that the “space-filling curve” feature and “box-counting dimension” feature are disclosed by a single reference, the ‘114 Patent.
- **One or More of the EPO Group Having a Duty of Candor intentionally withheld material information from the Second U.S. Examiner, including multiple EPO communications and references:** One or More of the EPO Group Having a Duty of Candor intentionally withheld from Examiner

Nguyen at least the following material information from the prosecution of EP Application No. 00909089.5: (1) Fractus' August 14, 2003 Reply to Examination report that included references and a tutorial on Fractus' method of calculating a "box-counting dimension" as an argument that the common claim features could be understood (2) an October 28, 2004 Summons that articulated the EPO's "Lack of Clarity" and "Lack of Disclosure" arguments concerning the common claim features, (3) Fractus' December 15, 2003 Letter Dealing with Oral Proceedings that provided further references directed to the common claim features, and (4) the EPO's January 2005 Minutes from Oral Proceedings, which indicated the common claim features were not novel.

- **The withholding of material information from the Second U.S. Examiner prompted the Second U.S. Examiner to reach a conclusion contrary to the First U.S. Examiner and the EPO Examiner:** On December 13, 2004, in the '635 Patent Application, Examiner Nguyen (unaware of the '114 Patent or Examiner's Wimer's rejection based thereupon or the EPO communications of August 14, 2003), identified claims with a "box-counting dimension greater than one" as allowable – a finding specifically contrary to Examiner Wimer's finding for the exact same claim feature and the EPO's finding for the exact same claim feature.
- **Despite the knowledge that two other examiners believed the common claim features were not novel, one or more of the EPO Group Having a Duty of Candor did not inform the Second U.S. Examiner of material information concerning such claim features; rather they took claims with the common claim features from the Second U.S. Examiner:** On March 17, 2005, in the '635 Patent Application, Joseph Sauer of Jones Day took claims that Examiner Nguyen identified as allowable, namely those with a "box-counting dimension greater than one" – the same claim feature Examiner Wimer found was disclosed by the '114 Patent and the EPO found was not novel.
- **The common claim features were presented to three examiners, and the two examiner that were provided the tutorial indicated that the common claim features were not novel:** One or more of the EPO Group Having a Duty of Candor presented the "box-counting dimension" claim feature in three applications: EP Application No. 00909089.5, the application leading to the '675 Patent, and the '635 Patent Application. Of these three applications, the "box-counting dimension" tutorial is withheld from one application, the '635 Patent Application. Examiner Nguyen of the '635 Patent Application found claims allowable because the art allegedly does not disclose the "box-counting dimension" features. However, the other two examiners that were provided the tutorial 1. Examiner Wimer in the application leading to the '675 Patent, and 2. the EPO Examiner of EP Application No. 0090989.5), reach an opposite conclusion — finding that the box-counting dimension feature is not

novel. Accordingly, the intentional withholding of this tutorial deceived Examiner Nguyen.

- **One or more of the EPO Group Having a Duty of Candor never disclosed the material communications from EP Application No. 00909089.5 (including references) to the Second U.S. Examiner:** Ultimately, Examiner Nguyen was never provided the August 14, 2003 tutorial or references or post-August 14, 2003 communication with the EPO or references in EP Application No. 00909089.5 for either the '635 Patent Application or the applications leading to the '850 Patent in the '822 Patent. This is despite the EPO determining that the "box-counting dimension" feature was not novel in EP Application No. 00909089.5.

mm. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

nn. Because the highly material EPO communications in EP Application No. 00909089.5 (including the August 14, 2003 tutorial and box-counting dimension references) were knowingly withheld from the prosecution of the Space Filling Miniature Patent Family, one or more of Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors from the Fractus Common Inventor Group intentionally deceived Examiner Nguyen and the USPTO. As a result, the patents in the Space Filling Miniature Patent Family are unenforceable due to inequitable conduct.

oo. The USPTO has a general rule in which for a "continuation application," an "examiner will consider information which has been considered by the Office in a parent application." MPEP 609.02. This rule, however, does not apply to the facts of the preceding subparagraphs. Because the highly material EPO communications and references in EP Application No. 00909089.5 (including the August 14, 2003 tutorial) were never provided in the

‘635 Patent Application (the parent application of the ‘850 Patent and the ‘822 Patent), they were also not considered in the applications leading to the ‘850 Patent and the ‘822 Patent.

pp. Any inequitable conduct that occurred in the ‘635 Patent Application would spread to children that claimed priority to such an application. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del. 2006) *aff’d*, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007). Because the same claim features (e.g., space-filling curve and box-counting dimension greater than one) included in the ‘635 Patent Application were also included in the ‘850 Patent and the ‘822 Patent, the inequitable conduct with respect to such features in the ‘635 Patent Application infected the ‘850 Patent and the ‘822 Patent. Additionally, the failure to cite the EPO communications and references in EP Application No. 00909089.5 (including the August 14, 2003 tutorial) in the prosecution of the applications leading to the ‘850 Patent and the ‘822 Patents separately constitutes a basis of inequitable conduct with respect to the ‘850 Patent and the ‘822 Patent.

185. Based on the allegations in Paragraphs 183 and 184, incorporated herein by reference, the ‘850 Patent and the ‘822 Patent are unenforceable due to inequitable conduct of Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

COUNT TWENTY:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,015,868, 7,123,208, 7,394,432,
7,397,431 AND 7,528,782

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Presented False Statements to the USPTO; and Failed to Correct Such False Statements in the Prosecution of the '868 Patent, the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent.

186. The '868 Patent, the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent (these patents and others claiming priority to U.S. Patent Application No. 10/102,568 collectively referred to as the "Multilevel Antenna Patent Family") are unenforceable because Fractus and/or its patent attorneys and/or others substantively involved in the prosecution before the USPTO knowingly presented false information to the USPTO, failed to correct such false statements, and failed to disclose material information to the USPTO as follows, and as set forth in Paragraphs 183-198 and all of their subparagraphs which are all incorporated herein by reference:

a. The Multilevel Antenna Patent Family purportedly claims priority to PCT Application No. ES99/00296. On March 29, 2001, an international search report was issued for PCT Application No. ES99/00296, citing, amongst other references, Publication WO 9706578 (listing Cohen as inventor).

b. The first of the U.S. applications (U.S. Patent Application No. 10/102,568) for the Multilevel Antenna Patent Family, purportedly claiming priority to PCT Application No. ES99/00296, was filed on March 18, 2002. The following statement concerning Publication WO 9706578 (listing Cohen as inventor) (hereinafter, the "Cohen Statement") was added to the specification of U.S. Patent Application No. 10/102,568:

Publication WO 97/06578 discloses a fractal antenna, which has nothing to do with a multilevel antenna being both geometries essentially different.

This Cohen Statement was not included in the original PCT Application No. ES99/00296.

c. The Cohen Statement was a false characterization of Publication WO 97/06578. In particular, Publication WO 97/06578 is not limited to only fractal antennas as alleged in the Cohen Statement. Rather, for example, on page 24-25 of Publication WO 97/06578, it provides:

Further, it is understood that it suffices if an element according to the present invention is substantially a fractal. A deviation of less than perhaps 10% from a perfectly drawn and implemented fractal will still provide adequate fractal-like performance, based upon actual measurements conducted by applicant.

The above recitation clarifies that Publication WO 97/06578 also describes antenna elements that are other than fractal. Therefore, the Cohen Statement is a material misrepresentation.

d. The inventors of the Multilevel Antenna Patent Family include Carles Puente Baliarda; Carmen Borja Borau; Jaume Anguera Pros; and Jordi Soler Castany (hereinafter, the “Fractus Multilevel Inventor Group.”). The Fractus Multilevel Inventor Group owed a duty of candor and good faith in dealing with the USPTO.

e. After the Cohen Statement was added to the specification of the first of the U.S. applications (U.S. Patent Application No. 10/102,568) for the Multilevel Antenna Patent Family, the inventors of the Fractus Multilevel Inventor Group acknowledged the presence of the Cohen Statement. Specifically, on April 9, 2002 the Fractus Multilevel Inventor Group signed a declaration for U.S. Patent Application No. 10/102,568 (of the Multilevel Antenna Patent Family, which included the Cohen Statement) indicating “I hereby state that I have reviewed and understand the contents of the above-identified specification.” Therefore, by signing the declaration of April 9, 2002, the inventors of the Fractus Multilevel Inventor Group were informing the USPTO that they understood the specification, including the Cohen Statement.

f. The April 9, 2002 Declaration signed by the inventors further stated: “I acknowledge the duty to disclose information which is material to the examination of the

application.” Accordingly, the inventors of the Fractus Multilevel Inventor Group acknowledged their duty of candor and good faith in dealing with the USPTO.

g. Upon information and belief, one or more of the Fractus Multilevel Inventor Group knew the Cohen Statement was false, indicating as much in a communication with the EPO for a different Fractus application (EP application no. 909089.5), corresponding to Fractus’ Space Filling Miniature Patent Family.

h. Specifically, on August 14, 2003, for EP application no. 909089.5, an argument was made in attempts to distinguish Publication WO 97/06578 (listing Cohen as inventor) from claims of Fractus’ European space-filling curve application. Upon information and belief, one or more of the Fractus Multilevel Inventor Group provided the information for this argument for submittal to the EPO.

i. The argument referenced in the preceding subparagraph for EP application no. 909089.5 was provided as follows (emphasis added):

Any real object that approaches a fractal shape is no longer a fractal. Owing to such a vague definition of the term fractal, it is impossible to determine in [Publication WO 97/06578] what is really described and what is the different with other prior art antennas.

Further confusion in the antenna geometries is introduced in pp. 24-25 (lines 35 to 4) of [Publication WO 97/06578]. The author states that “a deviation of less than perhaps 10% from a perfectly drawn and implemented fractal will still provide adequate fractal-like performance”. ***This implies that the definition of ‘fractal’ used in said patent is different from the common definition of fractal***, since any fractal curves features an infinite length any of the drawings or descriptions described in patent [Publication WO 97/06578] deviate by far more than a 10% with respect to an infinite length.

The above recitation illustrates that one or more of the Fractus Multilevel Inventor Group specifically recognized that Publication WO 97/06578 was not limited to only fractal antennas, as alleged in the Cohen Statement. Rather, one or more of the Fractus Multilevel Inventor Group

specifically recognized that Publication WO 97/06578 allowed the so-called fractal antennas to deviate by 10% from a so-called fractal. Accordingly, one or more of the Fractus Multilevel Inventor Group recognized that Publication WO 97/06578 disclosed shapes other than fractal shapes.

j. Despite specifically arguing that Publication WO 97 06578 did not disclose only fractal antennas as indicated in the preceding subparagraph, one or more of the Fractus Multilevel Inventor Group continued to rely on the false Cohen Statement. Specifically, after making the arguments contrary to the Cohen Statement described in the preceding subparagraph, one or more of the Fractus Multilevel Inventor Group acknowledged the Cohen Statement again (“Publication WO 97/06578 discloses a fractal antenna, which has nothing to do with a multilevel antenna being both geometries essentially different.”). Specifically, in a Declaration dated on October 28, 2004 for U.S. Patent Application No. 10,963,080 (of the Multilevel Antenna Patent Family, which included the Cohen Statement), the inventors of the Fractus Multilevel Inventor Group signed another declaration stating “I hereby state that I have reviewed and understand the contents of the above identified specification . . . I acknowledge the duty to disclose information which is material to the patentability as defined in 37 C.F.R. 1.56 . . .”

k. The intent to deceive the USPTO is apparent. Despite knowledge by one or more of the Fractus Multilevel Inventor Group that the Cohen Statement was false, the October 28, 2004 Declaration for U.S. Application No. 10/963,080 was still signed. Moreover, every patent in the Multilevel Antenna Patent Family not only claims priority to U.S. Application No. 10/963,080, but also additionally includes the false Cohen Statement.

l. Further recognition by Fractus of the false nature of the Cohen Statement is apparent. In a subsequent application that is not part of the Multilevel Antenna Patent Family, the Cohen Statement was modified to explain that:

The international publication WO 97/06578 entitled fractal antennas, resonators and loading elements, *describe fractal-shaped elements* which may be used to form an antenna.

(See e.g., the '762 Patent, Emphasis added). This new language allows for "other than fractal variation" described above for Cohen and recognized by one or more of the Fractus Multilevel Inventor Group. Upon information and belief, the above language was specifically changed because one or more of the Fractus Multilevel Inventor Group and/or their Patent Attorneys knew the Cohen Statement was false.

m. Upon information and belief, due to a concern about the Publication WO 9706578 (listing Cohen as inventor), the Cohen Statement was specifically added for the U.S. Prosecution with the intent that the USPTO would rely on such a statement, and not apply Publication WO 97 06578 (listing Cohen as inventor) to reject the claims. Upon information and belief, the false Cohen Statement misdirected United States patent examiners from considering what Cohen actually taught or disclosed.

n. The materiality of the Cohen Statement is apparent. Even though the USPTO did not use Publication WO 9706578 (listing Cohen as inventor) to reject claims in the United States Prosecution of the Multilevel Antenna Patent Family, the EPO specifically used Publication WO 9706578 in the European Prosecution of the foreign counterpart of the Multilevel Antenna Patent Family to reject claims.

o. The intent to deceive the USPTO is also apparent. Notwithstanding the specific knowledge that the Cohen Statement was false as evidenced by the modified Cohen

Statement used in other Fractus applications, one or more of the Fractus Multilevel Inventor Group continued to use the false Cohen Statement in application after application of the Multilevel Antenna Patent Family.

p. Because the Fractus Multilevel Inventor Group knowingly presented this false statement to the USPTO with an intent that the USPTO would rely on such a statement, the patents in the Multilevel Antenna Patent Family are unenforceable due to inequitable conduct. Further, the failure to correct this knowingly false statement is also a separate basis for a finding of inequitable conduct.

187. Based on the allegations in Paragraph 186, incorporated herein by reference, the '868 Patent, the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent are unenforceable due to inequitable conduct of Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

COUNT TWENTY-ONE:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,411,556 AND 7,312,762

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld United States Patent No. 5,363,114 and Rejections Based Thereupon, Received in an Application for United States Patent No. 7,511,675, in the Prosecution of the '556 Patent and the '762 Patent.

188. The '556 Patent and the '762 Patent are also unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information received in a related Fractus application as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. David Maiorana and Joseph Sauer of the Jones Day law firm prosecuted the applications leading to the ‘556 Patent and the ‘762 Patent. At a minimum, David Maiorana of Jones Day filed the application leading to the ‘762 Patent and Joseph Sauer of Jones Day filed the application leading to the ‘556 Patent. Further, upon information and belief, Mr. Maiorana and Mr. Sauer discussed and shared prosecution strategies amongst one another in the prosecution of Fractus patent applications. Accordingly, Mr. Maiorana and Mr. Sauer had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information in the prosecution of the applications leading to the ‘556 Patent and the ‘762 Patent.

c. Carles Puente Baliarda was an inventor on each and every one of the following “space-filling curve” applications/patents: the ‘675 Patent, the ‘850 Patent, the ‘822 Patent, the ‘635 Patent Application, the ‘556 Patent and the ‘762 Patent. Accordingly, Carles Puente Baliarda had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution of the applications leading to the ‘556 Patent and the ‘762 Patent.

d. The ‘556 Patent and the ‘762 Patent — like the ‘675 Patent, the ‘850 Patent, the ‘822 Patent, and the ‘635 Patent Application — include or included claims with the “space-filling curve” feature. The following are non-limiting examples:

675 Patent: In the application as filed, Claims 1-71 included a “space-filling curve” feature.

‘556 Patent: In the application as filed, Dependent Claim 6 recites, in part, that the “radiating arm forms a space-filling curve”

‘762 Patent: As filed and as subsequently Second Amended, Dependent Claim 10 includes “a space-filling curve” feature.

‘635 Patent Application: In the application as filed, Independent Claims 1 and 14 and their dependent claims included a “space-filling curve” feature.

'850 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the '635 Patent Application) and Claims 17-106 were added. All of Claims 17-106 included a "space-filling curve" feature.

'822 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the '635 Patent Application) and Claims 17-73 were added. Of these claims, at least Independent Claim 55 included a "multi-segment curve" feature.

e. Upon information and belief, Fractus treated the "multi-segment curve" claim feature as a similar feature to the "space-filling curve" claim feature.

f. Because of the relatedness of the claims of the application leading to the '675 Patent and the applications leading to the '556 Patent and the '762 Patent (in particular, the "space-filling curve" claim features), a patent examiner of the applications leading to the '556 Patent and the '762 Patent would have wanted to know of the rejections issued and/or references applied by the examiner of the application leading to the '675 Patent.

Application Leading to the '762 Patent

g. The application leading to the '762 Patent was filed on April 13, 2004 by David Maiorana of Jones Day. With this filing, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda recognized the relatedness of the '762 Patent to the Space Filling Miniature Patent Family (which included the '850 Patent, the '822 Patent, and the '635 Patent Application). Specifically, the specification of the '762 Patent recognized the "space-filling curve" feature of the Space Filling Miniature Patent Family as part of the geometry "according to the present invention" as follows (emphasis added):

The geometries of the loads that can be connected to the conducting surface ***according to the present invention*** are: a) A curve composed by a minimum of two segments and a maximum of nine segments which are connected in such a way that each segment forms an angle with their neighbours, i.e., no pair of adjacent segments define a larger straight segment. b) A straight segment or strip

c) A straight strip with a polygonal shape d) *A space-filling curve, Patent No. PCT/EP00/004111 entitled "Space-filling miniature antennas"*.

PCT Application No. EP00/004111 is the purported parent of the Space Filling Miniature Patent Family.

h. Furthermore, in the early stages of prosecution of the application leading to the '762 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda submitted references that were previously submitted in the application leading to the '675 Patent for the application leading to the '762 Patent.

i. As an example of the preceding subparagraph, David Maiorana of Jones Day filed an information disclosure statement on August 31, 2004 in the application leading to the '762 Patent that contained references that were previously cited on February 10, 2004 in the application leading '675 Patent. See, for example, the below IDSs (February 10, 2004 for the application leading to the '675 Patent on the left and August 31, 2004 for the application leading to the '762 Patent on the right):

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.980(d))

Any Docket No.: 15127760002

Serial No.: 10422,278
Applicant(s): Puente Baliarda, et al.
Filing Date: April 24, 2003
Group: Not Yet Assigned

U.S. PATENT DOCUMENTS

Exam. Init.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
2002/	0 0 0 0 9 4 0	01/03/2002	Moran et al.			
2002/	0 1 0 9 6 3 3	08/15/2003	Ow et al.			
2002/	0 1 7 5 8 6 6	11/26/2002	Gran			
3	5 2 1 2 8 4	07/21/1970	Shelton, Jr. et al.			
3	5 9 9 2 1 4	08/10/1971	Altmeier			
3	6 2 2 8 9 0	11/23/1971	Fajimoto et al.			
3	6 8 3 3 7 6	08/08/1972	Prosser			
3	8 1 8 4 9 0	06/18/1974	Leahy			
3	9 6 7 2 7 6	06/29/1975	Orndoss			
3	9 6 9 7 3 0	07/13/1976	Fuchser			
4	0 2 4 5 4 2	05/17/1977	Baues et al.			
4	1 3 1 8 9 3	12/26/1978	Manson et al.			
4	4 7 1 3 5 8	09/11/1984	Glasser			
4	4 7 1 4 9 3	09/11/1984	Schuber			
4	5 0 4 8 3 4	03/12/1985	Gerry et al.			
4	5 4 3 5 8 1	09/24/1985	Nemet			
4	5 7 1 5 9 5	02/18/1986	Phillips et al.			
4	5 8 4 7 0 9	04/22/1986	Kennel et al.			
4	5 9 0 6 1 4	05/20/1986	Erst			
4	6 2 3 8 9 4	11/18/1986	Lee et al.			
4	6 7 3 9 4 8	06/16/1987	Kao			
4	7 3 0 1 9 5	03/08/1988	Phillips et al.			
4	8 3 9 6 6 0	06/13/1989	Hedenglo			
4	8 4 3 4 6 8	06/27/1989	Dewery			
4	8 4 7 6 2 9	07/11/1989	Shimazaki			
4	8 4 9 7 6 6	07/18/1989	Isaba et al.			
4	8 5 7 9 3 9	08/15/1989	Shimazaki			
4	8 9 0 1 1 4	12/26/1989	Egashira			
4	8 9 4 6 6 3	01/16/1990	Urbish et al.			
4	9 0 7 0 1 1	03/06/1990	Kao			
4	9 1 2 4 8 1	03/27/1990	Mace et al.			
4	9 7 5 7 1 1	12/04/1990	Lee			
5	0 2 9 6 3	03/09/1991	Talento			
5	1 8 3 2 8	08/11/1992	Ziboh et al.			
5	1 6 8 4 7 2	12/01/1992	Lockwood			
5	1 7 2 0 8 4	12/15/1993	Federnatko et al.			
5	2 0 0 7 5 6	04/06/1993	Feller			
5	2 1 4 4 3 4	05/25/1993	Hsu			
5	2 1 8 3 7 0	06/08/1993	Blaese			

Page 1 of 5

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.980(d))

Any Docket No.: 15145400018

Serial No.: 10422,931
Applicant(s): Puente Baliarda et al.
Filing Date: April 13, 2004
Group: Not Yet Assigned

U.S. PATENT DOCUMENTS

Exam. Init.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
2002/	0 0 0 0 9 4 0	01/03/2002	Moran et al.			
2002/	0 0 0 0 9 4 2	01/03/2002	Chaves			
2002/	0 0 3 6 5 9 4	03/26/2002	Gyenes			
2002/	0 1 0 5 4 8 8	08/08/2002	Toussier et al.			
2002/	0 1 0 9 6 3 3	08/15/2002	Ow et al.			
2002/	0 1 2 6 0 5 4	09/12/2002	Fuente et al.			
2002/	0 1 2 6 0 3 3	09/12/2002	Lundmeisen et al.			
2002/	0 1 7 3 8 6 6	11/28/2002	Gran			
3	5 2 1 2 8 4	07/21/1970	Shelton, Jr. et al.			
3	5 9 9 2 1 4	08/10/1971	Altmeier			
3	6 2 2 8 9 0	11/23/1971	Fajimoto et al.			
3	6 8 3 3 7 6	08/08/1972	Prosser			
3	8 1 8 4 9 0	06/18/1974	Leahy			
3	9 6 7 2 7 6	06/29/1975	Orndoss			
3	9 6 9 7 3 0	07/13/1976	Fuchser			
4	0 2 4 5 4 2	05/17/1977	Baues et al.			
4	1 3 1 8 9 3	12/26/1978	Manson et al.			
4	4 7 1 3 5 8	09/11/1984	Glasser			
4	4 7 1 4 9 3	09/11/1984	Schuber			
4	5 0 4 8 3 4	03/12/1985	Gerry et al.			
4	5 4 3 5 8 1	09/24/1985	Nemet			
4	5 7 1 5 9 5	02/18/1986	Phillips et al.			
4	5 8 4 7 0 9	04/22/1986	Kennel et al.			
4	5 9 0 6 1 4	05/20/1986	Erst			
4	6 2 3 8 9 4	11/18/1986	Lee et al.			
4	6 7 3 9 4 8	06/16/1987	Kao			
4	7 3 0 1 9 5	03/08/1988	Phillips et al.			
4	8 3 9 6 6 0	06/13/1989	Hedenglo			
4	8 4 3 4 6 8	06/27/1989	Dewery			
4	8 4 7 6 2 9	07/11/1989	Shimazaki			
4	8 4 9 7 6 6	07/18/1989	Isaba et al.			
4	8 5 7 9 3 9	08/15/1989	Shimazaki			
4	8 9 0 1 1 4	12/26/1989	Egashira			
4	8 9 4 6 6 3	01/16/1990	Urbish et al.			
4	9 0 7 0 1 1	03/06/1990	Kao			
4	9 1 2 4 8 1	03/27/1990	Mace et al.			
4	9 7 5 7 1 1	12/04/1990	Lee			
5	0 2 9 6 3	03/09/1991	Talento			
5	1 8 3 2 8	08/11/1992	Ziboh et al.			
5	1 6 8 4 7 2	12/01/1992	Lockwood			
5	1 7 2 0 8 4	12/15/1993	Federnatko et al.			
5	2 0 0 7 5 6	04/06/1993	Feller			
5	2 1 4 4 3 4	05/25/1993	Hsu			
5	2 1 8 3 7 0	06/08/1993	Blaese			

Page 1 of 6

More references are included in the August 31, 2004 IDS for the application leading to the ‘762 Patent than the February 10, 2004 IDS for the application leading to the ‘675 Patent. Upon information and belief, the additional references cited in the August 31, 2004 IDS for the application leading to the ‘762 correspond to references previously cited in the application leading to the ‘675 Patent, for example, before the February 10, 2004 IDS. Thus, upon information and belief, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda attempted to cite the same references to the USPTO in the application leading to the ‘762 Patent that were previously cited in the application leading to the ‘675 Patent.

j. As indicated in the subparagraphs of Paragraph 183, on October 4, 2004, in the prosecution of the application leading to the ‘675 Patent, Examiner Wimer of the USPTO issued an office action (addressed to Joseph Sauer of Jones Day), which was received by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda. Examiner Wimer’s rejection informed one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda that the ‘114 Patent disclosed the “space-filling curve” feature of the claims as follows, in part:

3. Claims 1,3,4,6 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Shoemaker (5363114).

Regarding Claims 1,3,4,6,11-13, Shoemaker shows an antenna system integrated with a physical component of a motor vehicle comprising a radio antenna 20 having a radiating arm defining a space-filling curve “R” of right-angled bends and straight lines and having a feed point (at connector 41) and coupled to a radio, and formed on a dielectric substrate “C”; a grounding point 63 (Fig. 12), a loading point 50,58 (Fig.11), all arranged as claimed.

k. At the same time, on October 4, 2004, the claim feature of the “space-filling curve” was also present in the claims of the co-pending application leading to the ‘762 Patent Application. For example, Claim 10 (as it existed on October 4, 2004) specified that “the shape of at least one loading strip is a space-filling curve.” Accordingly, the ‘114 Patent and the rejections based thereupon were material to the application leading to the ‘762 Patent. Furthermore, the ‘114 Patent and rejections based thereupon were not cumulative to references already of record in the application leading to the ‘762 Patent. At a minimum, Examiner Wimer’s rejection based on the ‘114 Patent was not cumulative to references already of record in the application leading to the ‘762 Patent. Notwithstanding this, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda withheld the ‘114 Patent and Examiner’s Wimer’s rejection from the USPTO in the prosecution of the application leading to the ‘762 Patent.

l. In addition to withholding the ‘114 Patent and rejections based thereupon in the prosecution of the application leading to the ‘762 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda additionally withheld other references cited by Examiner Wimer in rejecting claims of the application leading to the ‘635 Patent. In particular, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda withheld United States Patent Nos. 6,011,518 and 6,087,990 — both of which were used as secondary references to the ‘114 Patent in an obviousness rejection of October 4, 2004 for claims of the application leading to the ‘675 Patent.

m. Despite previously citing substantially the same references in both the application leading to the ‘675 Patent and the application leading to the ‘762 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda

withheld rejections and references received in the application leading to the ‘675 Patent from the prosecution of the application leading to the ‘762 Patent.

n. On October 4, 2004, because the application leading to the ‘762 Patent had not yet received a FAOM, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda had at least a first opportunity (“First ‘762 Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to the USPTO in the prosecution of the application leading to the ‘762 Patent. Specifically, an information disclosure statement without fee could have been filed in the application leading to the ‘762 Application between October 4, 2004 up until October 5, 2006 — the date of the FAOM for the application leading to the ‘762 Patent. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on this First ‘762 Opportunity.

o. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda recognized their duty to disclose prior art cited in the application leading to the ‘675 Patent in other Fractus patent applications. On December 13, 2004, almost two months after receiving the rejection in the application leading to the ‘675 Patent, David Maiorana of Jones Day cited the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in United States Patent Application No. 10/963,080 entitled “Multilevel Antenna.” Significantly, United States Patent Application No. 10/963,080 entitled “Multilevel Antenna” did not include the “space-filling curve” claim feature whereas the application leading to the ‘762 Patent did include such a claim feature. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda did not cite the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in the application leading to the ‘762 Patent.

p. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda recognized the materiality of the ‘114 Patent to claims with “space-filling curve” feature. Specifically, on January 6, 2005, in response to Examiner Wimer’s rejection in the application leading to the ‘675 Patent, Joseph Sauer of Jones Day Second Amended the claims in attempts to distinguish them from the ‘114 Patent, specifying that the “space-filling curve” included at least “two-hundred segments.”

q. Having just Second Amended claims on January 6, 2005 to overcome the ‘114 Patent in the application leading to the ‘675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda had a second opportunity (“Second ‘762 Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to the USPTO in the prosecution of the application leading to the ‘762 Patent. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on this Second ‘762 Opportunity.

r. Approximately two months after amending the claims in the application leading to the ‘675 Patent, on March 29, 2005, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda Second Amended claims in the application leading to the ‘762 Patent. Specifically, Joseph Sauer of Jones Day filed a preliminary amendment. In this preliminary amendment, Joseph Sauer indicated that the claims were Second Amended, among other things, “for clarity and/or to correct typographical errors.” In this amendment, the “space-filling curve” features (previously present in the claims) were maintained.

s. With this March 29, 2005 preliminary amendment “for clarity and/or to correct typographical errors,” one or more of Joseph Sauer of Jones Day, David Maiorana of

Jones Day, and/or Carles Puente Baliarda had a third opportunity (“Third ‘762 Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to the USPTO in the prosecution of application leading to the ‘762 Patent. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on this Third ‘762 Opportunity.

t. Shortly after the March 29, 2005 preliminary amendment, on April 7, 2005, in the prosecution of the application leading to the ‘675 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda was reminded, again, of the highly material nature of the ‘114 Patent. Specifically, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda received another rejection (addressed to Joseph Sauer of Jones Day) from Examiner Wimer at the USPTO. Examiner Wimer’s rejection indicated that the ‘114 Patent disclosed the “space-filling curve” claim feature — even after the claims were further Second Amended to require that the “space-filling curve” to include at least “two-hundred segments.”

u. With the rejection of April 7, 2005 described in the preceding subparagraph, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda had a fourth opportunity (“Fourth ‘762 Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to the USPTO in the prosecution of the application leading to the ‘762 Patent. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on this Third ‘762 Opportunity.

v. The prosecution of the application leading to the ‘675 Patent continued as indicated below with involvement by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda. Each of the below-identified prosecution

events presented a unique opportunity for one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda to disclose the '114 Patent and rejections based thereupon in the prosecution of the application leading to the '762 Patent:

- In a May 31, 2005 Response to Office Action, Joseph Sauer of Jones Day argued that the “space-filling curve includes at least two hundred segments” claim feature was novel over the '114 Patent, indicating that this claim limitation “describe[s] the degree of miniaturization of the radio antenna, which is made possible by the use of the claimed space-filling curve.” The “space-filling curve” claim features were still present in the application leading to the '762 Patent. (“Fifth '762 Opportunity”)
- In a June 23, 2005 Advisory Action addressed to Joseph Sauer of Jones Day, Examiner Wimer of the USPTO indicated that the “space-filling curve” claims were still not allowable. The “space-filling curve” claim features were still present in the application leading to the '762 Patent. (“Sixth '762 Opportunity”)
- In an August 8, 2005 RCE, Joseph Sauer of Jones Day further Second Amended the already Second Amended claims. First, he changed the term “space-filling curve” to “space-filling geometry.” Then in addition to requiring that the “space-filling geometry” include at least “two hundred segments,” he further Second Amended the claims to require that the “entire space-filling geometry contributes to the radiation characteristics of the radio antenna.” The “space-filling curve” claim features are still present in the application leading to the '762 Patent. (“Seventh '762 Opportunity”)
- In an August 24, 2005 non-final rejection addressed to Joseph Sauer of Jones Day, Examiner Wimer continued to maintain his rejection of the “space-filling curve” claims — even as further Second Amended. Among other things, he found that the '114 Patent met the “space-filling geometry.” The “space-filling curve” claim features are still present in the application leading to the '762 Patent. (“Eighth '762 Opportunity”)

Despite having these four additional opportunities to disclose highly material information to the USPTO, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on these four additional opportunities.

w. On August 26, 2005, Joseph Sauer of Jones Day filed a request for withdrawal of “all the attorneys/agents of record” from the application leading to the '762 Patent.

Then, on September 23, 2005, a power of attorney signed by Carles Puente Baliarda appointed practitioners at Customer No. 23932 (which, upon information and belief, was the law firm of Jenkins and Gilchrist) as Fractus' attorneys. The September 23, 2005 power of attorney indicated that as of that date, an examiner had not yet been assigned. The duty for one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda to disclose the '114 Patent and the rejections based thereupon in the applications leading to the '762 Patent never extinguished with the power of attorney being provided to a new firm.

Application Leading to the '556 Patent

x. The application leading to the '556 Patent was filed on May 9, 2005 by Joseph Sauer of Jones Day. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda recognized the relatedness of the '556 Patent to the Space Filling Miniature Patent Family (which included the '850 Patent, the '822 Patent, and the '635 Patent Application). Specifically, the application leading to the '850 Patent — United States Patent Application No. 11/110,052 — was specifically incorporated by reference in the specification of the '556 Patent as follows:

The use of shape-filling curves to form antenna structures is described in greater detail in the co-owned U.S. application Ser. No. 11/110,052, entitled Space-Filling Miniature Antennas, which is hereby incorporated into the present application by reference.

y. At the time of filing the application leading to the '556 Patent on May 9, 2005, as indicated in previous subparagraphs, several prosecution events had already occurred in the prosecution of the application leading to the '675 Patent:

In an October 4, 2004 Rejection, Examiner Wimer indicated that the '114 Patent disclosed the "space-filling curve" feature of the claims.

In a January 6, 2005 Response, Joseph Sauer of Jones Day Second Amended the "space-filling curve" claims in attempts to distinguish them from the '114 Patent.

Specifically, Joseph Sauer of Jones Day Second Amended the claims to require the “space-filling curve” to include at least “two-hundred segments.”

In an April 7, 2005 Final Rejection, Examiner Wimer again indicated that the ‘114 Patent disclosed the “space-filling curve” claims — even when the claims are Second Amended to specify that “space-filling curve” has over two hundred segments.

The application leading to the ‘556 Patent included the same “space-filling curve” claim feature being prosecuted in the application leading to the ‘675 Patent. For example, claim 6 of the originally filed ‘556 Patent recited that “the first radiating arm forms a space-filling curve,” and Claim 1 of the application leading to the ‘675 Patent recited that “at least a portion of the radiating arm defining a space-filling curve.” Accordingly, the references and rejections received in the prosecution of the application leading to the ‘675 Patent was material to the prosecution of the application leading to the ‘556 Patent.

z. Because all of the preceding prosecution events in the application leading to the ‘675 Patent occurred before the filing of the application leading to the ‘556 Patent, the filing of the application leading to the ‘556 Patent presented one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda with a first opportunity (“First ‘556 Opportunity”) to disclose the ‘114 Patent and the rejections based thereupon to the USPTO in the prosecution of application leading to the ‘556 Patent. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on this First ‘556 Opportunity.

aa. After the filing of the application leading to the ‘556 Patent, the prosecution of the application leading to the ‘675 Patent continued as indicated below with involvement by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda. Each of the these prosecution events presented a unique opportunity for

one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda to disclose the ‘114 Patent and rejections based thereupon in the prosecution of the application leading to the ‘556 Patent:

- In a May 31, 2005 Response to Office Action, Joseph Sauer of Jones Day argued that the “space-filling curve” includes at least “two hundred segments” feature was novel over the ‘114 Patent, indicating that this claim limitation “describe[s] the degree of miniaturization of the radio antenna, which is made possible by the use of the claimed space-filling curve.” The “space-filling curve” claim features were still present in the application leading to the ‘556 Patent. (“Second ‘556 Opportunity”)
- In a June 23, 2005 Advisory Action addressed to Joseph Sauer of Jones Day, Examiner Wimer of the USPTO indicated that the claims were not allowable. The “space-filling curve” claim features were still present in the application leading to the ‘556 Patent. (“Third ‘556 Opportunity”)
- In an August 8, 2005 RCE, Joseph Sauer of Jones Day further Second Amended the already Second Amended claims. First, he changed the term “space-filling curve” to “space-filling geometry.” Then in addition to requiring that the “space-filling geometry” include at least “two hundred segments,” he Second Amended the claims to require that the “entire space-filling geometry contributes to the radiation characteristics of the radio antenna.” The “space-filling curve” claim features are still present in the application leading to the ‘556 Patent. (“Fourth ‘556 Opportunity”)
- In an August 24, 2005 non-final rejection addressed to Joseph Sauer of Jones Day, Examiner Wimer continued to maintain his rejection of the “space-filling curve” claims — even as further Second Amended. Among other things, he found that the ‘114 Patent met the “space-filling geometry” feature. The “space-filling curve” claim features were still present in the application leading to the ‘556 Patent. (“Fifth ‘762 Opportunity”)

Despite having these four additional opportunities to disclose highly material information to the USPTO, one or more of Joseph Sauer of Jones Day, Fourth Maiorana of Jones Day, and/or Carles Puente Baliarda chose not to act on such four additional opportunities.

bb. On September 13, 2005, Joseph Sauer of Jones Day filed a request for withdrawal of “all the attorneys/agents of record” from the application leading to the ‘556 Patent.

Then, on October 11, 2005, a power of attorney signed by Carles Puente Baliarda appointed practitioners at Customer No. 23932 (which, upon information and belief, was the law firm of Jenkins and Gilchrist) as Fractus' attorneys. The power of attorney filed on October 11, 2005 indicated as of that date that no Examiner had yet been assigned. The duty for one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda to cite the '114 Patent and the rejections based thereupon in the applications leading to the '556 Patent never extinguished with the power of attorney being provided to a new firm.

cc. As of September 13, 2005, the filing date for the request for withdrawal of attorney, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda had provided no references to the USPTO in an information disclosure statement.

dd. Ultimately, the '114 Patent and the rejections based thereupon were never disclosed in the applications leading to the '556 Patent and the '762 Patent. Because the '114 Patent and the rejections based thereupon were never disclosed in the applications leading to the '556 Patent and the '762 Patent, upon information and belief, one of two scenarios occurred. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda did not provide the '114 Patent and the rejections based thereupon to the new attorneys from the other law firm, causing them to be withheld from the prosecution of the applications leading to the '556 Patent and the '762 Patent. Or, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda provided the '114 Patent and rejections based thereupon to the new attorneys from the other law firm and the new attorneys from the other law firm chose not to submit them to the USPTO. In either scenario, those having a duty to disclose the '114 Patent and the rejections based thereupon failed to disclose or have

them disclosed to the USPTO in the prosecution of the applications leading ‘556 Patent and the ‘762 Patent.

ee. The ‘114 Patent and the rejections based thereupon (received in the prosecution of the application leading to the ‘675 Patent) were highly material to claims of the applications leading to the ‘762 Patent and the ‘556 Patent:

- **There was a common claim feature in each of the patent applications:** Each of the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent, the ‘822, the ‘762 Patent, and the ‘556 Patent includes or included a common “space-filling curve” claim feature.
- **Subject matter from one application was incorporated by reference and/or referenced by the specification of another:** The specification of the application leading to the ‘762 Patent recognized the “space-filling curve” feature of the Space Filling Miniature Patent Family as being part of the geometry “according to the present invention [of the application leading to the ‘762 Patent].” In the specification of the application leading to the ‘556 Patent, the application leading to the ‘850 Patent — United States Patent Application No. 11/110,052 — was specifically incorporated by reference.”
- **A U.S. Examiner found that the ‘114 Patent disclosed the common claim feature:** On October 4, 2004, in the application leading to the ‘675 Patent, Examiner Wimer indicated that the ‘114 Patent disclosed the “space-filling curve” claim feature. At that time, the same “space-filling curve” claim feature was present in the co-pending application leading to the ‘762 Patent.
- **Applicants presented an amendment to the common claim feature to the U.S. Examiner in attempts to overcome the ‘114 Patent:** On January 6, 2005, Joseph Sauer of Jones Day in the application leading to the ‘675 Patent Second Amended the “space-filling” curve claims in an attempt to distinguish them from the ‘114 Patent. Specifically, Joseph Sauer Second Amended claims to require the “space-filling curve” to include at least “two-hundred segments.” At that time, the same “space-filling curve” claim feature was present in the co-pending application leading to the ‘762 Patent.
- **The U.S. Examiner found that the ‘114 Patent disclosed the common claim feature — even as further Second Amended:** On April 7, 2005, Examiner Wimer again indicated that the above-identified common “space-filling curve” claim feature is disclosed by a single reference, the ‘114 Patent. In particular, in the application leading to the ‘675 Patent, Examiner Wimer maintained his rejection — even after the claims were further Second Amended to require the “space-filling curve” to include at least “two-hundred

segments.” At that time, the same “space-filling curve” claim feature was still present in the co-pending application leading to the ‘762 Patent.

- **The ‘556 Patent is filed with the common claim feature:** On May 29, 2005, Joseph Sauer of Jones Day filed the application leading to the ‘556 Patent, including claims with the “space-filling curve” claim feature.
- **Applicants presented further arguments to the U.S. Examiner as to why the Second Amended common claim feature is purportedly novel over the ‘114 Patent:** On May 31, 2005 in a Response to Office Action for the application leading to the ‘675 Patent, Joseph Sauer of Jones Day argued that the “space-filing curve includes at least two hundred segments” claim feature was novel over the ‘114 Patent, indicating that this claim feature “describe[s] the degree of miniaturization of the radio antenna, which is made possible by the use of the claimed space-filling curve.” At that time, the same “space-filling curve” claim feature was still present in the co-pending applications leading to the ‘762 Patent and the ‘556 Patent.
- **The U.S. Examiner still finds that the ‘114 Patent disclosed the common claim feature — even as further Second Amended:** On June 23, 2005, in the application leading to the ‘675 Patent, the PTO issued an Advisory Action addressed to Joseph Sauer of Jones Day. Examiner Wimer of the USPTO indicated that the claims with the “space-filling curve” claim features are still not allowable. At that time, the same “space-filling curve” claim feature was still present in the co-pending applications leading to the ‘762 Patent and the ‘556 Patent.
- **Applicants presented further amendments to the already Second Amended common claim feature to the U.S. Examiner in attempts to overcome the ‘114 Patent:** On August 8, 2005, in the application leading to the ‘675 Patent, Joseph Sauer of Jones Day further Second Amended the already Second Amended claims. First, he changed the term “space-filling curve” to “space-filling geometry.” Then in addition to requiring the “space-filling geometry to include at least “two hundred segments,” he Second Amended the claims to further require that the “entire space-filling geometry contributes to the radiation characteristics of the radio antenna.” At that time, the same “space-filling curve” claim feature was still present in the co-pending applications leading to the ‘762 Patent and the ‘556 Patent.
- **The U.S. Examiner finds that the twice Second Amended claims are not novel over the ‘114 Patent:** On August 24, 2005, Examiner Wimer again rejected the claims of the application leading to the ‘675 Patent. In this rejection, Examiner Wimer found that the ‘114 Patent met the modified “space-filling geometry” geometry feature. At that time, the “space-filling curve” feature is still present in the co-pending applications leading to the ‘762 Patent and the ‘556 Patent.

ff. The intent to deceive the USPTO by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carles Puente Baliarda (the “Puente Group Having a Duty of Candor”) is also apparent:

- **There was a common claim feature in each of the patent applications:** Each of the ‘675 Patent, the ‘635 Patent Application, the ‘850 Patent, the ‘822, the ‘762 Patent, and the ‘556 Patent includes or included a common “space-filling curve” claim feature.
- **One or more of the Puente Group Having a Duty of Candor established a practice of cross-citing references among the patent applications and then intentionally stopped:** One or more of the Puente Group Having a Duty of Candor recognized that the application leading to the ‘762 Patent and the ‘635 Patent Application are related by citing the same references in both applications. This established and repeated practice of citing the same references in both cases ceased after the ‘114 Patent and other prior art references were used to reject claims in the ‘675 Patent.
- **One or more of the Puente Group Having a Duty of Candor was put on specific notice of the materiality of the ‘114 Patent when a U.S. Examiner found that the ‘114 Patent disclosed the common claim feature:** On October 4, 2004, in the application leading to ‘675 Patent, Examiner Wimer’s rejection indicated that the above-identified common claim feature (“space-filling curve” feature) was disclosed by a single reference, the ‘114 Patent.
- **One or more of the Puente Group Having a Duty of Candor recognized their duty of disclosure by citing the ‘114 Patent in a less relevant application; however, they did not cite the ‘114 Patent in applications in which it was highly relevant:** On December 13, 2004, the Puente Group Having a Duty of Candor cited the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in United States Patent Application No. 10/963,080 entitled “Multilevel Antenna,” which did not include the common claim feature. However, they did not cite the ‘114 Patent, the ‘518 Patent, and the ‘990 Patent in the application leading to the ‘762 Patent, which did include the common claim feature.
- **One or more of the Puente Group Having a Duty of Candor was presented with at least eight distinct opportunities to disclose the ‘114 Patent in the applications leading to the ‘762 Patent, but intentionally chose not to act on each of these opportunities:** Eight distinct opportunities served as prompting reminders to disclose the ‘114 Patent and rejections based thereupon to the USPTO in the examination of the application leading to the ‘762 Patent, including: (1) an October 4, 2004 rejection by Examiner

Wimer in the application leading to the '675 Patent, which indicated that the '114 Patent disclosed the common claim feature, (2) a January 6, 2005 amendment to the common claim features presented to Examiner Wimer in the application leading to the '675 Patent, attempting to overcome the '114 Patent, (3) a March 29, 2005 preliminary amendment in the application leading to the '762 Patent, (4) an April 7, 2005 rejection by Examiner Wimer in the application leading to the '675 Patent, indicating that the amendment to the common claim feature still did not overcome the '114 Patent, (5) a May 31, 2005 argument presented to Examiner Wimer in the application leading to the '675 Patent, alleging that the Second Amended common claim feature was novel, (6) an April 7, 2005 communication from Examiner Wimer in the application leading to the '675 Patent, indicating that the amendment to the common claim feature still did not overcome the '114 Patent, (7) an August 8, 2005 second amendment to the common claim feature presented to Examiner Wimer in the application leading to the '675 Patent, attempting again to overcome the '114 Patent, and (8) an August 24, 2005 rejection from Examiner Wimer in the application leading to the '675 Patent, indicating that the further amendment to the common claim feature still did not overcome the '114 Patent.

- **One or more of the Puente Group Having a Duty of Candor was presented with at least five distinct opportunities to disclose the '114 Patent in the applications leading to the '556 Patent, but intentionally chose not to act on each of these opportunities:** Five distinct opportunities served as prompting reminders to disclose the '114 Patent and rejections based thereupon to the USPTO in the examination of the application leading to the '556 Patent, including: (1) on May 9, 2009 when the application leading to the '556 Patent was filed, events 1, 2, and 4 for the application leading to the '762 Patent had already occurred, (2) a May 31, 2005 argument presented to Examiner Wimer in the application leading to the '675 Patent, alleging that the Second Amended common claim feature was novel, (3) an April 7, 2005 communication from Examiner Wimer in the application leading to the '675 Patent, indicating that the amendment to the common claim feature still did not overcome the '114 Patent, (4) an August 8, 2005 second amendment to the common claim features presented to Examiner Wimer in the application leading to the '675 Patent, attempting again to overcome the '114 Patent, and (5) an August 24, 2005 rejection from Examiner Wimer in the application leading to the '675 Patent, indicating that the further amendment to the common claim feature still did not overcome the '114 Patent.
- **One or more of the Puente Group Having a Duty of Candor never disclosed the '114 Patent or the rejections based thereupon to the USPTO:** Ultimately, one or more of the Puente Group Having a Duty of Candor never provided the '114 Patent or the rejections based thereupon to the USPTO in the applications leading to the '762 Patent and the '556 Patent.

This is despite continued difficulties encountered in prosecuting the application leading to the '675 Patent.

gg. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

hh. Because the highly material '114 Patent and the rejections based thereupon were knowingly withheld from the prosecution of the applications leading to the '762 Patent and the '556 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or Carlos Puente Baliarda intentionally deceived the USPTO. As a result, the '556 Patent and the '762 Patent are unenforceable due to inequitable conduct.

189. Based on the allegations in Paragraphs 188, incorporated herein by reference, the '762 Patent and the '556 Patent are unenforceable due to inequitable conduct of Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO.

COUNT TWENTY-TWO:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,148,850 AND 7,202,822

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld United States Patent Nos. 6,122,533 and 4,536,725 and Rejections Based Thereupon, Received in an Application for United States Patent No. 7,245,196, in the Prosecution of the '850 Patent, the '822 Patent, and the Parent Application of the '850 Patent and the '822 Patent.

190. The '850 Patent and the '822 Patent are unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO

knowingly withheld with an intent to deceive highly material information received in a related Fractus application as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. The applications leading to the '850 Patent and the '822 Patent are children of United States Patent Application No. 10/182,635, filed in the U.S. on November 1, 2002 (the '635 Patent Application) (the '635 Patent Application, and all the patents and applications claiming priority therefrom, including the '850 Patent and the '822 Patent, collectively referred to as the "Space Filling Miniature Patent Family").

c. As discussed below, information was withheld from all of the applications in the Space Filling Miniature Patent Family. And, this information was material to claims in all of the applications in the Space Filling Miniature Patent Family.

d. David Maiorana and Joseph Sauer of the Jones Day law firm were identified as Fractus' Patent Attorneys and were substantively involved in the prosecution of the Space Filling Miniature Patent Family. Both Mr. Maiorana and Mr. Sauer worked in the Cleveland office of Jones Day. Additionally, upon information and belief, Mr. Maiorana and Mr. Sauer discussed and shared prosecution strategies amongst one another and with members of the Second Fractus Common Inventor Group (defined below) in the prosecution of multiple Fractus patent applications, including the applications in the Space Filling Miniature Patent Family. As a result, Mr. Maiorana and Mr. Sauer had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution

of Fractus patent applications, including the applications in the Space Filling Miniature Patent Family.

e. David Maiorana of Jones Day and Joseph Sauer of Jones Day prosecuted at least the following two “space-filling curve” applications for Fractus: the ‘635 Patent Application and another application leading to U.S. Patent No. 7,245,196 (the ‘196 Patent).

f. Each of Carles Puente Baliarda and Edouard Jean Louis Rozan (hereinafter, the “Second Fractus Common Inventor Group”) were listed as inventors on each and every one of the following applications/patents: the ‘196 Patent, the ‘850 Patent, the ‘822 Patent, and the ‘635 Patent Application. Additionally, upon information and belief, one or more of the inventors in the Second Fractus Common Inventor Group were substantively involved in one or more of the prosecution of the applications leading to the ‘196 Patent, the ‘635 Patent Application, the ‘850 Patent and the ‘822 Patent. Accordingly, each person in this Second Fractus Common Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO for each of the ‘635 Patent Application and the applications leading to the ‘196 Patent, the ‘850 Patent, and the ‘822 Patent.

g. The application leading to the ‘196 Patent, the ‘635 Patent Application, the ‘850 Patent and the ‘822 Patent are related because all include or included claims directed towards a “space-filling curve”. The following are non-limiting examples:

‘196 Patent: In the application as filed, Claim 1 included a “space-filling curve” feature (abbreviated as an “SFC”). In a preliminary amendment, at least Claims 7-49 were amended to recite or depend from a claim that recited a “SFC.” Claim 1 further recited, the “SFC” is “composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length.”

'635 Patent Application: In the application as filed, Independent Claim 1 and its dependent claims included a "space-filling curve" feature. Claim 1 further recited, the "SFC" is "composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length."

'850 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the '635 Patent Application) and Claims 17-106 were added. All of Claims 17-106 included a "space-filling curve" feature. Claim 17 further recited, the "SFC including at least ten connected segments, wherein said segments are each smaller than a tenth of an operating free-space wavelength."

'822 Patent: In a preliminary amendment, Claims 1-16 were cancelled (which correspond to the originally filed claims in the '635 Patent Application) and Claims 17-73 were added. Of these claims, at least Independent Claim 55 included a "multi-segment curve" feature. Upon information and belief, "multi-segment curve" and "space-filling curve" were used by Fractus to describe the same concept.

h. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group recognized the relatedness of the '635 Patent Application to the application leading to the '196 Patent.

i. As an example of the preceding subparagraph, Joseph Sauer of Jones Day filed the exact same Information Disclosure Statement ("IDS") in each of the '635 Patent Application and the application leading to the '196 Patent. On February 24, 2003, Joseph Sauer of Jones Day filed these two identical IDSs respectively in the '635 Patent Application and the application leading to the '196 Patent (application leading to the '196 Patent on the left and the '635 Patent Application on the right):

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

Any Docket No.: 15345460005

Serial No.: 10181,790

Applicant(s): Bulanda et al.

Filing Date:

Group:

U.S. PATENT DOCUMENTS

Exam. Int.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
2002/	0 1 0 9 6 3 3	08/15/2002	Ow et al.			
	3 5 2 1 2 8 4	07/21/1970	Shelton, Jr. et al.			
	3 5 9 9 2 1 4	08/10/1971	Altmyer			
	3 6 2 2 8 9 0	11/23/1971	Fujimoto et al.			
	3 6 8 3 3 7 6	08/08/1972	Prerovost			
	3 9 6 7 2 7 6	06/29/1976	Gouhaus			
	3 9 6 9 7 3 0	07/13/1976	Fuchser			
	4 0 2 4 5 4 2	05/17/1977	Ukawa et al.			
	4 1 3 1 8 9 3	12/26/1978	Matsuo et al.			
	4 4 7 1 4 9 3	09/11/1984	Schober			
	4 5 0 4 8 3 4	03/12/1985	Garry et al.			
	4 5 4 3 5 8 1	09/24/1985	Neimert			
	4 5 7 1 5 9 5	02/19/1986	Phillips et al.			
	4 5 8 4 7 0 9	04/22/1986	Kiesel et al.			
	4 5 9 0 6 1 4	05/29/1986	Egan			
	4 7 3 0 1 9 5	03/08/1988	Phillips et al.			
	4 8 3 3 6 6 0	06/13/1989	Hedenglo			
	4 8 4 7 6 2 9	07/11/1989	Shimomaki			
	4 8 5 3 9 3 9	08/15/1989	Shimomaki			
	4 8 9 0 1 1 4	12/26/1989	Yagihara			
	4 8 9 4 6 6 8	01/16/1990	Urbish et al.			
	4 9 7 5 7 1 1	12/04/1990	Lee			
	5 0 3 0 9 6 6	07/09/1991	Tadama			
	5 1 3 8 3 2 8	08/11/1992	Zibrik et al.			
	5 2 0 0 7 3 6	04/05/1993	Feller			
	5 2 1 4 4 3 4	05/25/1993	Hsu			
	5 2 1 8 3 7 0	06/08/1993	Blacie			
	5 2 2 7 8 0 4	07/13/1993	Oda			
	5 2 2 7 8 0 8	07/13/1993	Doris			
	5 2 4 5 3 5 0	09/14/1993	Soska			
	5 2 5 7 0 3 2	10/26/1993	Diamond et al.			
	5 3 4 7 2 9 1	09/13/1994	Moore			
	5 3 7 3 3 0 0	12/13/1994	Jennett et al.			
	5 4 2 0 5 9 9	05/30/1995	Eckersieck			
	5 4 2 2 6 5 1	06/06/1995	Chang			
	5 4 5 1 9 6 3	09/19/1995	Matsunoto			
	5 4 5 1 9 6 8	09/19/1995	Emery			

Page 1 of 3

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

Any Docket No.: 15345460005

Serial No.: 10181,790

Applicant(s): Bulanda et al.

Filing Date:

Group:

U.S. PATENT DOCUMENTS

Exam. Int.	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date
2002/	0 1 0 9 6 3 3	08/15/2002	Ow et al.			
	3 5 3 1 2 8 4	07/21/1970	Shelton, Jr. et al.			
	3 5 9 9 2 1 4	08/10/1971	Altmyer			
	3 6 2 2 8 9 0	11/23/1971	Fujimoto et al.			
	3 6 8 3 3 7 6	08/08/1972	Prerovost			
	3 9 6 7 2 7 6	06/29/1976	Gouhaus			
	3 9 6 9 7 3 0	07/13/1976	Fuchser			
	4 0 2 4 5 4 2	05/17/1977	Ukawa et al.			
	4 1 3 1 8 9 3	12/26/1978	Matsuo et al.			
	4 4 7 1 4 9 3	09/11/1984	Schober			
	4 5 0 4 8 3 4	03/12/1985	Garry et al.			
	4 5 4 3 5 8 1	09/24/1985	Neimert			
	4 5 7 1 5 9 5	02/19/1986	Phillips et al.			
	4 5 8 4 7 0 9	04/22/1986	Kiesel et al.			
	4 5 9 0 6 1 4	05/29/1986	Egan			
	4 7 3 0 1 9 5	03/08/1988	Phillips et al.			
	4 8 3 3 6 6 0	06/13/1989	Hedenglo			
	4 8 4 7 6 2 9	07/11/1989	Shimomaki			
	4 8 5 3 9 3 9	08/15/1989	Shimomaki			
	4 8 9 0 1 1 4	12/26/1989	Yagihara			
	4 8 9 4 6 6 8	01/16/1990	Urbish et al.			
	4 9 7 5 7 1 1	12/04/1990	Lee			
	5 0 3 0 9 6 6	07/09/1991	Tadama			
	5 1 3 8 3 2 8	08/11/1992	Zibrik et al.			
	5 2 0 0 7 3 6	04/05/1993	Feller			
	5 2 1 4 4 3 4	05/25/1993	Hsu			
	5 2 1 8 3 7 0	06/08/1993	Blacie			
	5 2 2 7 8 0 4	07/13/1993	Oda			
	5 2 2 7 8 0 8	07/13/1993	Doris			
	5 2 4 5 3 5 0	09/14/1993	Soska			
	5 2 5 7 0 3 2	10/26/1993	Diamond et al.			
	5 3 4 7 2 9 1	09/13/1994	Moore			
	5 3 7 3 3 0 0	12/13/1994	Jennett et al.			
	5 4 2 0 5 9 9	05/30/1995	Eckersieck			
	5 4 2 2 6 5 1	06/06/1995	Chang			
	5 4 5 1 9 6 3	09/19/1995	Matsunoto			
	5 4 5 1 9 6 8	09/19/1995	Emery			

Page 1 of 3

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

Any Docket No.: 15345460005

Serial No.: 10181,790

Applicant(s): Bulanda et al.

Filing Date:

Group:

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Int.	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Filing Date
	0 5 4 3 6 4 5	05/26/1993	EP			
	0 5 7 1 1 2 4	11/24/1993	EP			
	0 7 6 5 0 0 1	03/26/1997	EP			
	0 8 1 4 5 3 6	12/29/1997	EP			
	0 8 9 2 4 5 9	01/20/1999	EP			
	0 9 3 2 2 1 9	07/28/1999	EP			
	1 0 9 7 9 7 4	05/03/2000	EP			
	1 0 1 8 7 7 7	07/12/2000	EP			
	1 0 1 8 7 7 9	07/12/2000	EP			
	1 0 7 9 4 6 2	02/28/2001	EP			
	1 0 8 3 6 2 4	03/14/2001	EP			
	1 0 9 4 5 4 5	04/25/2001	EP			
	1 0 9 6 6 0 2	05/02/2001	EP			
	1 2 6 7 4 3 8	12/18/2002	EP			
	1 3 4 7 8 0 6	11/18/1980	JP			
	5 0 0 7 1 0 9	01/14/1993	JP			
	5 1 2 9 8 1 6	05/25/1993	JP			
	5 2 6 7 9 1 6	10/15/1993	JP			

Page 2 of 3

FORM PTO-1449 (Modified)
U.S. DEPARTMENT OF COMMERCE
TRADEMARK OFFICE

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

Any Docket No.: 15345460005

Serial No.: 10181,790

Applicant(s): Bulanda et al.

Filing Date:

Group:

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Int.	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Filing Date
	0 5 4 3 6 4 5	05/26/1993	EP			
	0 5 7 1 1 2 4	11/24/1993	EP			
	0 7 6 5 0 0 1	03/26/1997	EP			
	0 8 1 4 5 3 6	12/29/1997	EP			
	0 8 9 2 4 5 9	01/20/1999	EP			
	0 9 3 2 2 1 9	07/28/1999	EP			
	1 0 9 7 9 7 4	05/03/2000	EP			
	1 0 1 8 7 7 7	07/12/2000	EP			
	1 0 1 8 7 7 9	07/12/2000	EP			
	1 0 7 9 4 6 2	02/28/2001	EP			
	1 0 8 3 6 2 4	03/14/2001	EP			
	1 0 9 4 5 4 5	04/25/2001	EP			
	1 0 9 6 6 0 2	05/02/2001	EP			
	1 2 6 7 4 3 8	12/18/2002	EP			
	1 3 4 7 8 0 6	11/18/1980	JP			
	5 0 0 7 1 0 9	01/14/1993	JP			
	5 1 2 9 8 1 6	05/25/1993	JP			
	5 2 6 7 9 1 6	10/15/1993	JP			

Page 2 of 3

1	2	3	4	5	6	7	12/21/1993	JP
2	2	0	4	9	0	8	03/21/1994	JP
3	3	0	9	5	1		05/05/1999	GB
4	3	5	5	1	1	6	04/15/2001	GB
5	6	3	8	8	8	1	12/05/1996	PCT
6	7	3	3	3	3	8	09/12/1997	PCT
7	7	4	7	0	5	4	12/11/1997	PCT
8	8	1	2	7	7	1	03/26/1998	PCT
9	9	0	3	1	6	6	01/21/1999	PCT
10	9	0	3	1	6	3	01/21/1999	PCT
11	9	2	5	0	4	2	05/20/1999	PCT
12	9	5	6	3	4	5	11/04/1999	PCT
13	0	0	1	0	2	8	01/06/2000	PCT
14	0	0	3	4	5	3	01/20/2000	PCT
15	0	2	2	6	9	5	04/20/2000	PCT
16	0	5	2	7	8	7	09/08/2000	PCT
17	1	0	3	2	3	8	01/15/2001	PCT
18	1	0	8	2	5	7	02/01/2001	PCT
19	1	1	3	4	6	4	02/22/2001	PCT
20	1	1	7	0	6	4	03/08/2001	PCT
21	1	2	4	3	1	4	04/05/2001	PCT
22	1	2	6	1	8	2	04/12/2001	PCT
23	1	2	8	0	3	5	04/19/2001	PCT
24	1	3	1	7	3	9	05/03/2001	PCT
25	1	3	3	6	6	5	05/10/2001	PCT
26	1	3	5	4	9	1	05/17/2001	PCT
27	1	3	7	3	6	9	05/25/2001	PCT
28	1	3	7	3	7	0	05/25/2001	PCT
29	1	4	1	2	5	2	06/07/2001	PCT
30	1	5	4	2	2	5	07/26/2001	PCT
31	1	7	8	1	9	2	10/18/2001	PCT
32	2	0	9	1	5	1	11/14/2002	PCT
33	2	0	9	6	1	6	11/28/2002	PCT

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant pages, Place of Publication***)

Ali, M. et al., "A Triple-Band Internal Antenna for Mobile Hand-held Terminals," IEEE, pp. 32-35 (1992)

Romeu, Jordi et al., "A Three Dimensional Helical Antenna," IEEE, pp. 550-553 (2002)

Parker et al., "Microwaves, Antennas & Propagation," IEEE Proceedings H, pp. 19-22 (February 1991)

Examiner: _____ Date Considered: _____

EXAMINER: Initial citation considered. Draw line through citation if not in conference and not considered. Include copy of this form with next communication to applicant.

1	2	3	4	5	6	7	12/21/1993	JP
2	2	0	4	9	0	8	03/21/1994	JP
3	3	0	9	5	1		05/05/1999	GB
4	3	5	5	1	1	6	04/15/2001	GB
5	6	3	8	8	8	1	12/05/1996	PCT
6	7	3	3	3	3	8	09/12/1997	PCT
7	7	4	7	0	5	4	12/11/1997	PCT
8	8	1	2	7	7	1	03/26/1998	PCT
9	9	0	3	1	6	6	01/21/1999	PCT
10	9	0	3	1	6	3	01/21/1999	PCT
11	9	2	5	0	4	2	05/20/1999	PCT
12	9	5	6	3	4	5	11/04/1999	PCT
13	0	0	1	0	2	8	01/06/2000	PCT
14	0	0	3	4	5	3	01/20/2000	PCT
15	0	2	2	6	9	5	04/20/2000	PCT
16	0	5	2	7	8	7	09/08/2000	PCT
17	1	0	3	2	3	8	01/15/2001	PCT
18	1	0	8	2	5	7	02/01/2001	PCT
19	1	1	3	4	6	4	02/22/2001	PCT
20	1	1	7	0	6	4	03/08/2001	PCT
21	1	2	4	3	1	4	04/05/2001	PCT
22	1	2	6	1	8	2	04/12/2001	PCT
23	1	2	8	0	3	5	04/19/2001	PCT
24	1	3	1	7	3	9	05/03/2001	PCT
25	1	3	3	6	6	5	05/10/2001	PCT
26	1	3	5	4	9	1	05/17/2001	PCT
27	1	3	7	3	6	9	05/25/2001	PCT
28	1	3	7	3	7	0	05/25/2001	PCT
29	1	4	1	2	5	2	06/07/2001	PCT
30	1	5	4	2	2	5	07/26/2001	PCT
31	1	7	8	1	9	2	10/18/2001	PCT
32	2	0	9	1	5	1	11/14/2002	PCT
33	2	0	9	6	1	6	11/28/2002	PCT

OTHER DOCUMENTS (Including Author, Title, Date**, Relevant pages, Place of Publication***)

Ali, M. et al., "A Triple-Band Internal Antenna for Mobile Hand-held Terminals," IEEE, pp. 32-35 (1992)

Romeu, Jordi et al., "A Three Dimensional Helical Antenna," IEEE, pp. 550-553 (2002)

Parker et al., "Microwaves, Antennas & Propagation," IEEE Proceedings H, pp. 19-22 (February 1991)

Examiner: _____ Date Considered: _____

EXAMINER: Initial citation considered. Draw line through citation if not in conference and not considered. Include copy of this form with next communication to applicant.

Page 3 of 3

Page 3 of 3

j. Because of the relatedness of the claims of the application leading to the '196 Patent and the '635 Patent Application, any rejection or references applied in the application leading to the '196 Patent would have been material to the applications of the Space Filling Miniature Patent Family.

k. The '635 Patent Application was being examined by Examiner Hoang V. Nguyen ("Examiner Nguyen") whereas the application leading to the '196 Patent was being examined by Examiner Benny Lee ("Examiner Lee"). Examiner Nguyen also examined the applications leading to the '850 Patent and the '822 Patent.

l. Because of the relatedness of the claims of the application leading to the ‘196 Patent and the ‘635 Patent Application, Examiner Nguyen in his examination of the ‘635 Patent Application and the applications leading to the ‘850 Patent and the ‘822 Patent would have wanted to know of the rejections issued and/or references applied by Examiner Lee in his examination of the application leading to the ‘196 Patent.

m. On August 27, 2004, in the prosecution of the application leading to the ‘196 Patent, Examiner Lee of the USPTO issued an office action (addressed to David Maiorana of Jones Day), which was received by one or more of David Maiorana of Jones Day, Joseph Sauer of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group. Examiner Lee’s rejection informed one or more of David Maiorana of Jones Day, Joseph Sauer of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group that United States Patent No. 6,122,533 (the ‘533 Patent) anticipated Claims 1 and 25 of the application leading to the ‘196 Patent. In particular, the ‘533 Patent disclosed all the elements of Claims 1 and 25, including “a space filling curve” having “at least ten interconnected segments.” Specifically, the ‘533 Patent was used in a 102(e) rejection of claims with the “space-filling curve” feature as follows, in part:

Claims 1, 25 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Zhang et al.

Zhang et al (fig. 9) discloses a resonator arrangement (e.g. 72a) which is comprised of a space filling curve comprising at least ten interconnected segments. Note that adjacent segments of the space-filling curve are configured such that any one segment is not straight relative to adjacent segments. Furthermore, note that any one segment of the space-filling curve only intersects and interconnects with adjacent segments at tip, which is rounded. Since the total length of each resonator is one-half wavelength, it stands to reason that the length of each of the at least ten segments inherently have a segment length to must be less than one-tenth wavelength. Note that a transmission line (78)

n. The '533 Patent was filed on June 27, 1997 and claims a priority date of June 28, 1996. Thus, the '533 Patent qualifies as prior art to the '635 Patent Application, the '850 Patent, and the '822 Patent pursuant to 35 U.S.C. §102(e).

o. At the same time, on August 27, 2004, the features of the "space-filling curve" and the "SFC" is "composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length" were also present in the claims of the co-pending '635 Patent Application. Accordingly, the '533 Patent and the rejections based thereupon were highly material to the '635 Patent Application. Furthermore, the '533 Patent and rejections based thereupon were not cumulative to references already of record in the '635 Patent Application. At a minimum, Examiner Lee's rejection based on the '533 Patent was not cumulative to references already of record in the '635 Patent Application. Notwithstanding this, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group withheld the '533 Patent and Examiner's Lee's rejection from Examiner Nguyen in the prosecution of the '635 Patent Application.

p. Despite previously citing the same references in both the application leading to the '196 Patent and the '635 Patent Application, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group withheld rejections and references received in the application leading to the '196 Patent from the prosecution of the '635 Patent Application.

q. Because the '635 Patent Application had not yet received a First Action on the Merits (FAOM) on August 27, 2004, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group had at least a first opportunity to disclose the '533 Patent ("First '533 Opportunity") and the rejections based thereupon to Examiner Nguyen in the prosecution of '635 Patent Application. Specifically, an information disclosure statement without fee could have been filed in the '635 Patent Application between August 27, 2004 and December 13, 2004 — the date of the FAOM for the '635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group chose not to act on this First '533 Opportunity.

r. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group recognized the materiality of the '533 Patent to claims with the "space filling curve" feature. Specifically, on December 8, 2004, in response to Examiner Lee's rejection in the application leading to the '196 Patent, Joseph Sauer of Jones Day amended the claims in attempts to distinguish them from the '533 Patent. In particular, Mr. Sauer cancelled Claim 1 which recited a "space filling curve composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length" and replaced it with Claim 51 which recited a "space filling

curve (SFC) ... including at least twenty (20) connected straight segments, wherein said straight segments are each smaller than a tenth of the operating free-space wave length.” He also argued, as follows:

The Examiner rejected claims 1 and 25 under 35 U.S.C. 102 as being anticipated by US 6,122,533 to Zhang, et al. (Zhang). These claims have been cancelled.

New claim 51 differs from rejected claim 1 in at least two ways. First, new claim 51 recites a plurality of cascaded transmission line segments, with each of the cascaded segments forming a space-filling curve (SFC). One example of a transmission line with cascaded transmission line segments that each form a SFC is illustrated in Fig. 12. Second, new claim 51 recites a more-preferred embodiment in which the SFCs include at least twenty (20) straight segments, whereas cancelled claim 1 recited a SFC with at least ten (10) segments. This space-filling curve geometry enables operation at lower frequencies in the minimum possible space. The Zhang reference does not disclose or render obvious either of these limitations. For at least this reason, Applicants contend that new claims 51-62 are patentably distinct from Zhang.

s. Having just amended claims on December 8, 2004 to overcome the ‘533 Patent in the application leading to the ‘196 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group had a second opportunity to disclose the ‘533 Patent (“Second ‘533 Opportunity”) and the rejections based thereupon to Examiner Nguyen in the prosecution of ‘635 Patent Application, which still had not received a FAOM. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group chose not to act on this Second ‘533 Opportunity.

t. One or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group recognized their duty to disclose material prior art cited in the application leading to the ‘196 Patent in other Fractus

patent applications. On December 13, 2004, Joseph Sauer of Jones Day cited the ‘533 Patent in United States Patent Application No. 10/963,080 entitled “Multilevel Antenna.” Significantly, United States Patent Application No. 10/963,080 entitled “Multilevel Antenna” did not include “space-filling curve” claim features whereas the Space Filling Miniature Patent Family did include such claim features. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group withheld the ‘533 Patent from the prosecution of the applications for the Space Filling Miniature Patent Family.

u. On December 13, 2004, in the prosecution of the ‘635 Patent Application, Examiner Nguyen issued a FAOM (addressed to David Maiorana of Jones Day), which was received by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group. Examiner Nguyen did not cite the ‘533 Patent. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group had a third opportunity to disclose the ‘533 Patent (“Third ‘533 Opportunity”) and the rejections based thereupon to Examiner Nguyen in the prosecution of ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group chose not to act on this Third ‘533 Opportunity.

v. On March 2, 2005, Examiner Lee informed David Maiorana of Jones Day that the amendment submitted on December 8, 2004 was not entered in the application leading to the ‘196 Patent, because it was directed to a non-elected species. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group had a fourth opportunity to disclose the ‘533 Patent

(“Fourth ‘533 Opportunity”) and the rejections based thereupon to Examiner Nguyen in the prosecution of the ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group chose not to act on this Fourth ‘533 Opportunity.

w. On March 10, 2005, in response to Examiner Lee’s correspondence of March 2, 2005 in the application leading to the ‘196 Patent, Joseph Sauer amended the claims in attempts to distinguish them from the ‘533 Patent. In particular, Mr. Sauer again replaced Claim 1 with a Claim 51 which recited a “space filling curve (SFC) ... including at least twenty (20) connected straight segments, wherein said straight segments are each smaller than a tenth of the operating free-space wave length.” He also argued, as follows:

New claim 51 differs from claim 1, which was rejected for being anticipated by Zhang et al. in the Office Action of August 27, 2004, in at least two ways. First, new claim 51 recites a plurality of cascaded transmission line segments, with each of the cascaded segments forming a space-filling curve (SFC). An example of a transmission line with cascaded transmission line segments that each form a SFC is illustrated in Fig. 21. Second, new claim 51 recites an embodiment in which the SFCs include at least twenty (20) straight segments, whereas cancelled claim 1 recited a SFC with at least ten (10) segments. This space-filling curve geometry enables

x. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group had a fifth opportunity to disclose the ‘533 Patent (“Fifth ‘533 Opportunity”) and the rejections based thereupon to Examiner Nguyen in the prosecution of the ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group chose not to act on this Fifth ‘533 Opportunity.

y. Despite the knowledge of the '533 Patent and the knowledge of the rejections based thereupon, and the knowledge that similar claims had to be amended to attempt to overcome the '533 Patent in the application leading to the '196 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group did not inform Examiner Nguyen of the '533 Patent or the rejections based thereupon. Particularly, on March 17, 2005, merely seven days after making an amendment to overcome the '533 Patent in the application leading to the '196 Patent, in a response for the prosecution of the '635 Patent Application of the Space Filling Miniature Patent Family, instead of apprising Examiner Nguyen and the USPTO of the '533 Patent or the rejections recently received in the application leading to the '196 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group remained silent.

z. In the March 17, 2005 response for the 'the '635 Patent Application, Joseph Sauer of Jones Day amended claims to recite a "SFC including at least ten connected straight segments." Yet, just seven days earlier on March 10, 2005, in the application leading to the '196 Patent, Joseph Sauer of Jones Day attempted to overcome the '533 Patent by cancelling a rejected claim and adding a new claim that recited a "SFC including at least twenty (20) connected straight segments." Accordingly, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group had a sixth opportunity to inform Examiner Nguyen of the '533 Patent ("Sixth '533 Opportunity") and the rejections based thereupon. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group chose not to act on this Sixth '533 Opportunity.

aa. The pattern of withholding information from the USPTO in the prosecution of the Space Filling Miniature Patent Family continued. On June 2, 2005, in the prosecution of the application leading to the '196 patent, Examiner Lee of the USPTO issued an office action, which was received by one or more of David Maiorana of Jones Day, Joseph Sauer of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group. Examiner Lee's rejection informed one or more of David Maiorana of Jones Day, Joseph Sauer of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group that United States Patent No. 4,536,725 (the '725 Patent) anticipated Claims 51 and 62 of the application leading to the '196 patent. In particular, the '725 Patent disclosed all the elements of Claims 51 and 62, including "a space filling curve" having "at least twenty (20) connected straight segments."

Claims 51, 62 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hubler.

Hubler (fig. 5) discloses a plurality of cascaded transmission line segments (i.e. resonators 1*, 2* 3*, 4*, 5*, 6*), each defining a spaced filled curve. Note that each of the resonators include at least 20 connected straight segments, such that no two adjacent segments connect to form another longer straight segment and that any two adjacent segments form a respective corner. Moreover, note that since the overall length of each resonator is one-quarter wavelength at the frequency of resonance, it inherently stands to reason that each individual segment must be less than one tenth the wavelength. Additionally, note that cascaded resonators (2*, 3*, 4*, 5*) provide for capacitive coupling therebetween (i.e. defined by respective couplings K_{2*3*} , K_{4*5*}).

Moreover, the '725 Patent was used in combination with the '533 Patent to reject Claim 52 pursuant to 35 U.S.C. §103(a):

Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hubler in view of Zhang et al (of record).

Hubler (Fig. 5) discloses the claimed invention except for the corners of adjacent line segments being rounded.

Zhang et al discloses, in various embodiments, that resonators having adjacent straight segments are conventionally connected by a rounded corner.

Accordingly, it would have been obvious to have modified the corners of the adjacent segments in Hubler to have been rounded corners, such as conventionally taught by Zhang et al. Moreover, such use of rounded corners would have provided the benefit of reduced electromagnetic energy reflection from sharp corners, thereby further suggesting the obviousness of such a modification.

bb. The '725 Patent issued on August 20, 1985 and therefore qualifies as prior art to the '635 application, the '850 Patent, and the '822 Patent pursuant to 35 U.S.C. §102 (b).

cc. At this time, the '635 Patent Application had not yet issued as a patent. Therefore, with the rejection of June 2, 2005 described in the preceding subparagraph, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group had a seventh opportunity to inform Examiner Nguyen of the '533 Patent ("Seventh '533 Opportunity"), and a first opportunity to inform Examiner Nguyen of the '725 Patent ("First '725 Opportunity"), and the rejections based thereupon. Furthermore, the '725 Patent and rejections based thereupon were not cumulative to references already of record in the '635 Patent Application. At a minimum, Examiner Lee's rejection based on the '725 Patent was not cumulative to references already of record in the '635 Patent Application. Notwithstanding this, one or more of Joseph Sauer of Jones Day, David Maiorana

of Jones Day, and/or inventors in the Second Fractus Common Inventor Group chose not to act on this Seventh ‘533 Opportunity and this First ‘725 Opportunity.

dd. On July 18, 2005, Joseph Sauer of Jones Day responded to Examiner Lee’s rejection of June 2, 2005 in the application leading to the ‘196 Patent. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group had an eighth opportunity to disclose the ‘533 Patent (“Eighth ‘533 Opportunity”) and the rejections based thereupon and a second opportunity to disclose the ‘725 Patent (“Second ‘725 Opportunity”) to Examiner Nguyen in the prosecution of the ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group chose not to act on these opportunities.

ee. On August 4, 2005, Examiner Lee issued an Advisory Action maintaining the rejection of Claims 51, 52, and 61. Accordingly, at this time, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group had a ninth opportunity to disclose the ‘533 Patent (“Ninth ‘533 Opportunity”) and the rejections based thereupon and a third opportunity to disclose the ‘725 Patent (“Third ‘725 Opportunity”) to Examiner Nguyen in the prosecution of the ‘635 Patent Application. However, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the inventors in the Second Fractus Common Inventor Group chose not to act on these opportunities.

ff. On October 18, 2005, Examiner Nguyen mailed a correspondence to David Maiorana of Jones Day indicating that the ‘635 patent application went abandoned for failure to timely pay an issue fee.

gg. As identified in the preceding subparagraphs, during the fourteen month time period between August 27, 2004 and October 18, 2005, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group could have acted on any given day of any given week to inform Examiner Nguyen of the '533 Patent, the '725 Patent, and Examiner Lee's rejections based thereupon. Significantly, during this fourteen month time period, there were at least nine distinct opportunities that served as prompting reminders to disclose the '533 Patent, and three distinct opportunities that served as prompting reminders to disclose the '725 Patent, and the rejections based thereupon to Examiner Nguyen in the examination of the '635 Patent Application.

hh. In addition to the above reasons of materiality, the '533 Patent and the '725 Patent are additionally material because they anticipate or render obvious relevant claims in the '850 and '822 Patents .

ii. In the prosecution of the application leading to the '196 Patent, to ultimately overcome the highly material '533 Patent and '725 Patent, further amendments were made specifying "wherein each pair of adjacent straight segments are generally orthogonal to each other and comprise segments of a Hilbert curve."

jj. Despite these opportunities and continued reminders of the materiality of the '533 Patent and the '725 Patent in the preceding subparagraphs and amendments made to overcome the '533 Patent and the '725 Patent in the prosecution of the application leading to the '196 Patent, one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or inventors in the Second Fractus Common Inventor Group repeatedly withheld the '533 Patent, the '725 Patent, and the multiple rejections based thereupon from Examiner Nguyen.

kk. Brian Walker of Howison & Arnott, LLP prosecuted the application leading to the '850 Patent and the application leading to the '822 Patent. Both of those patents include claims directed to the "space-filling curve" feature and/or the related "multi-segment curve" feature. On information and belief, Brian Walker of Howison & Arnott, LLP was made aware of the '533 Patent, the '725 Patent, and/or Examiner Lee's rejections based on these references in the application leading to the '196 Patent. Furthermore, on information and belief, Mr. Maiorana, Mr. Sauer, and Mr. Walker discussed and shared prosecution strategies amongst one another and with members of the Second Fractus Common Inventor Group in the prosecution of multiple Fractus patent applications, including the applications in the Space Filling Miniature Patent Family. Despite repeated opportunities to disclose the '533 Patent, the '725 Patent, and Examiner Lee's rejections during the prosecution of the '850 Patent and the '822 Patent, Brian Walker of Howison & Arnott, LLP withheld these references and rejections from Examiner Nguyen.

ll. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

mm. As identified in the above subparagraphs, the '533 Patent, the '725 Patent and the rejections based thereupon (received in the prosecution of the application leading to the '196 Patent) were highly material to claims of the '635 Patent Application, the '850 Patent, and the '822 Patent.

nn. As identified in the above subparagraphs, the intent to deceive Examiner Nguyen and the USPTO by one or more of Joseph Sauer of Jones Day, David Maiorana of Jones Day, Brian Walker of Howison & Arnott and/or inventors in the Second Fractus Common Inventor Group is also apparent.

oo. Because the highly material ‘533 Patent, ‘725 Patent, and Examiner Lee’s rejections based thereupon were intentionally withheld from the prosecution of the Space Filling Miniature Patent Family (namely, Examiner Nguyen), one or more of, Joseph Sauer of Jones Day, David Maiorana of Jones Day, Brian Walker of Howison & Arnott and/or inventors from the Second Fractus Common Inventor Group deceived Examiner Nguyen and the USPTO. As a result, all of the patents in the Space Filling Miniature Patent Family are unenforceable due to inequitable conduct.

pp. The USPTO has a general rule in which for a “continuation application,” an “examiner will consider information which has been considered by the Office in a parent application.” MPEP 609.02. This rule, however, does not apply to the facts of the preceding subparagraphs. Because the ‘533 Patent, the ‘725 Patent, and the rejections based thereupon were never provided in the ‘635 Patent Application (the parent application of the ‘850 Patent and the ‘822 Patent), they were also not considered in the applications leading to the ‘850 Patent and the ‘822 Patent.

qq. Any inequitable conduct that occurred in the ‘635 Patent Application would spread to children that claimed priority to such an application. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del. 2006) *aff’d*, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007). Because the same or related

claim features included in the '635 Patent Application were also included in the '850 Patent and the '822 Patent, the inequitable conduct with respect to such claim features in the '635 Patent Application infected the '850 Patent and the '822 Patent. Additionally, the failure to cite the '533 Patent, the '725 Patent, and rejections based thereupon in the prosecution of the applications leading to the '850 Patent and the '822 Patents separately constitutes a basis of inequitable conduct with respect to the '850 Patent and the '822 Patent.

COUNT TWENTY-THREE:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,397,431; 7,394,432 ;
7,528,782; 7,202,822 ; 7,411,556; AND 7,312,762

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld United States Patent No. 4,608,572 and Rejections Based Thereupon, Received in an Application for United States Patent No. 7,486,242, in the Prosecution of the ‘431 Patent, the ‘432 Patent, the ‘782 Patent, the ‘822 Patent, the ‘556 Patent, and the ‘762 Patent.

191. U.S. Patent Nos 7,397,431 (the “‘431 Patent”); 7,394,432 (the “‘432 Patent”); 7,528,782 (the “‘782 Patent”); 7,202,822 (the “‘822 Patent”); 7,411,556 (the “‘556 Patent”); and 7,312,762 (the “‘762 Patent”) are unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information received in a related Fractus application as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff’s Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. At different points in time, at least Joseph Sauer of Jones Day, Stanley Moore of Jenkins & Gilchrist (and later Winstead P.C.), Jeffrey Tinker of Winstead P.C., and Shoaib Mithani of Jenkins & Gilchrist (and later Winstead P.C.), prosecuted at least the application leading to U.S. Patent No. 7,486,242 (the ‘242 Patent). Additionally, upon information and belief, Mr. Sauer, Mr. Moore, Mr. Tinker, and Mr. Mithani discussed and shared prosecution strategies amongst one another and with members of the Third Fractus Common Inventor Group (defined below) in the prosecution of multiple Fractus patent applications, including those identified herein.

c. One or more of Carles Puente Baliarda and Jordi Soler Castany (hereinafter, the “Third Fractus Common Inventor Group”) were listed as inventors on one or more of the following patents: the ‘431 Patent, the ‘432 Patent, the ‘782 Patent, the ‘822 Patent, the ‘556 Patent, the ‘762 Patent, and the ‘242 Patent. Additionally, upon information and belief, one or more of the inventors in the Third Fractus Common Inventor Group were substantively involved in the prosecution of the applications leading to the ‘431 Patent, the ‘432 Patent, the ‘782 Patent, the ‘822 Patent, the ‘556 Patent, the ‘762 Patent, and the ‘242 Patent. Accordingly, each person in this Third Fractus Common Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO for each of the ‘431 Patent, the ‘432 Patent, the ‘782 Patent, the ‘822 Patent, the ‘556 Patent, and the ‘762 Patent.

d. The ‘431 Patent, the ‘432 Patent, the ‘782 Patent, the ‘822 Patent, the ‘556 Patent, the ‘762 Patent, and the ‘242 Patent are related because all include or included at least independent claims directed to a “multilevel structure” (e.g., ‘431: claims 1, 33, 34, 35, 36, and 37; ‘432: claim 1; ‘762: claims 1 and 21; ‘242: claims 1, 7, 14, 18, 19, 20, and 21) and a “space-filling structure” (e.g., ‘242: claims 7, 18, 19, 20, and 21), or related claim elements such as a “multi-segment curve” (‘822: claims 1, 39, 44, 45, 46, 47, 52, and 53), a “space-filling curve” (‘822: claims 40-43; ‘556: claims 23, 30, and 44; ‘762: claim 12), or a “structure including at least two levels of detail” (e.g., ‘431: claims 33 and 37; ‘782: claim 1).

e. Upon information and belief, “multilevel structure” and a “structure including at least two levels of details” were used by Fractus to describe the same concept.

f. Upon information and belief, “space-filling structure,” “space-filling curve” and “multi-segment curve” were used by Fractus to describe the same concept.

g. The application leading to the '242 Patent was being examined by Examiner Michael Wimer. The applications leading to the '431 Patent, the '432 Patent, and the '782 Patent were being examined by Examiner Tho Phan. The application leading to the '822 Patent was being examined by Examiner Hoang Nguyen. The application leading to the '556 Patent was being examined by Examiner Tan Ho. The application leading to the '762 Patent was being examined by Examiner Michael Wimer.

h. Because of the relatedness of the claims as set forth above in subparagraphs d, e, and f, the examiners of the applications leading to the '431 Patent, the '432 Patent, the '782 Patent, the '822 Patent, the '556 Patent, and the '762 Patent would have wanted to know of the rejections issued and/or the references applied by Examiner Wimer in his examination of the application leading to the '242 Patent.

i. On March 12, 2007, in the prosecution of the application leading to the '242 Patent, Examiner Wimer of the USPTO issued an office action (addressed to Jenkins & Gilchrist, PC), which was received by one or more of Stanley Moore and Shoaib Mithani. Examiner Wimer's rejection informed one or more of Stanley Moore and Shoaib Mithani that the claim terms "multilevel structure" and "space-filling structure" were rejected under 35 U.S.C. §112, as follows:

Application/Control Number: 11/021,597
Art Unit: 2821

Page 2

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language "multilevel structure" is confusing and not definite in the context of a planar structure. Such structure would best be described as the antenna plane and the ground plane, two separate planes, or multilevel. There appears to be no multilevel here with respect to the arms because they are coplanar and winding in paths that are separated by a gap. Clarification is required to provide clear and definite claims in order to define the invention.

In Claim 2, the language "a space-filling structure" is not completely understood.

Application/Control Number: 11/021,597
Art Unit: 2821

Page 3

What type of structure does not fill space? If this term implies anything more, then the term should be clearly defined. Claim 2 also has the same issue as in Claim 1 with respect to "a multilevel structure". Also, "a combination of both" should be illustrated. If it is shown by a drawing, applicant should point out the structure defined as a combination.

In addition, Examiner Wimer's rejection informed one or more of Stanley Moore and Shoaib Mithani that U.S. Patent No. 4,608,572 (the '572 Patent) anticipated Claim 2, which included the "multilevel structure" and "space-filling structure" limitations, pursuant to 35 U.S.C. §102(b).

Application/Control Number: 11/021,597
Art Unit: 2821

Page 4

5. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Blakney et al. (4608572).

Regarding Claim 2, Blakney et al. show a multiband antenna comprising a first conducting layer 12, 12a-12e, defined as a radiator element, placed over a second layer defined as a ground plane 14 and shaped as a multilevel structure and a space-filling structure, all arranged as claimed.

j. The '572 Patent issued on August 26, 1986. The '432, '431, and '782 Patents purportedly claim priority to September 20, 1999. The '822 Patent purportedly claims priority to January 19, 2000. The '556 Patent purportedly claims priority to December 22, 2002. The '762 purportedly claims priority to October 16, 2001. Thus, the '572 Patent qualifies as prior art to the '432, '431, '782, '822, '556, and '762 Patents pursuant to 35 U.S.C. §102(b). Furthermore, the '572 Patent was not cumulative to references already of record in the '432, '431, '782, '822, '556, and '762 Patents. At a minimum, Examiner Wimer's rejections based on the '572 Patent were not cumulative to references already of record in the '432, '431, '782, '822, '556, and '762 Patents.

k. On May 22, 2007, the correspondence address for the application leading to the '242 Patent was changed to Winstead Sechrest & Minick P.C. Upon information and belief, each of Stanley Moore and Shoaib Mithani changed firms from Jenkins & Gilchrist to Winstead Sechrest & Minick P.C.

l. On August 6, 2007, in response to Examiner Wimer's rejection in the application leading to the '242 Patent, Shoaib Mithani of Winstead P.C. amended various claims, including Claim 2 which recited the "multilevel structure" and "space-filling structure" limitations, and made various arguments in an attempt to overcome the 35 U.S.C. §112 and 35 U.S.C. §102(b) rejections.

m. On October 30, 2007, in the prosecution of the application leading to the '242 Patent, Examiner Wimer issued a final office action (addressed to Winstead PC), which was received by one or more of Stanley Moore, Shoaib Mithani, and Jeffrey Tinker. Examiner Wimer's rejection informed one or more of Stanley Moore, Shoaib Mithani, and Jeffrey Tinker that he maintained the rejection of Claim 2, which included the "multilevel structure" and "space-filling structure" limitations, pursuant to 35 U.S.C. §102(b) in view of the '572 Patent, as follows:

2. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Blakney et al. (4608572).

Regarding Claim 2, Blakney et al. show a multiband antenna comprising a first conducting layer 12, 12a-12e, defined as a radiator element, placed over a second layer defined as a ground plane 14 and shaped as a multilevel structure and a space-filling structure, all arranged as claimed.

n. One or more of Stanley Moore, Shoaib Mithani, and Jeffrey Tinker of Winstead P.C. and/or one or more inventors in the Third Fractus Common Inventor Group recognized the materiality of the '572 Patent to claims with the "multilevel structure" and the "space-filling structure" features. Specifically, on December 28, 2007, in response to Examiner Wimer's final office action in the application leading to the '242 Patent, Jeffrey Tinker of Winstead P.C. canceled Claim 2.

o. One or more of Joseph Sauer of Jones Day, and Stanley Moore, Ross Robinson, and Shoaib Mithani of Jenkins & Gilchrist, PC and later of Winstead P.C., were identified as Fractus' Patent Attorney and/or Patent Agent, and were substantively involved with the prosecution of the '556 Patent. As a result, Joseph Sauer of Jones Day, and Stanley Moore, Ross Robinson, and Shoaib Mithani of Jenkins & Gilchrist, PC and later of Winstead P.C., each had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution of Fractus patent applications, including the application leading to the '556 Patent.

p. The '556 Patent did not issue until August 12, 2008. Therefore, during the seventeen months from the mailing of the March 12, 2007 first office action in the application leading to the '242 Patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '556 Patent, including without limitation Stanley Moore and Shoaib Mithani of Winstead P.C., and Carles Puente Baliarda, had numerous opportunities to disclose the '572 Patent and Examiner Wimer's rejections in the application leading to the '242 Patent to Examiner Ho in the prosecution of the '556 Patent. However, each of these individuals withheld these references from Examiner Ho.

q. One or more of David Maiorana and Joseph Sauer of Jones Day, and Stanley Moore, Ross Robinson, and Shoaib Mithani of Jenkins & Gilchrist, PC and later of Winstead P.C., were identified as Fractus' Patent Attorney and/or Patent Agent, and were substantively involved with the prosecution of the '762 Patent. As a result, David Maiorana and Joseph Sauer of Jones Day, and Stanley Moore, Ross Robinson, and Shoaib Mithani of Jenkins & Gilchrist, PC and later of Winstead P.C., each had a duty of candor and good faith in dealing

with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution of Fractus patent applications, including the application leading to the '762 Patent.

r. The '762 Patent did not issue until December 25, 2007. Therefore, during the more than nine months from the mailing of the March 12, 2007 first office action in the application leading to the '242 Patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '762 Patent, including without limitation Stanley Moore and Shoaib Mithani of Winstead P.C., Carles Puente Baliarda, and Jordi Soler Castany, had numerous opportunities to disclose the '572 Patent and Examiner Wimer's rejections in the application leading to the '242 Patent to Examiner Wimer in the prosecution of the '762 Patent. However, each of these individuals withheld these references from Examiner Wimer.

s. The intent to deceive the USPTO and Examiner Wimer in the application leading to the '762 Patent by one or more of the individuals with a duty of candor and good faith in dealing with the USPTO is also apparent based on at least the following pattern of conduct:

- On March 12, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation, Stanley Moore and Shoaib Mithani, received a rejection in the application leading to the '242 Patent. The rejection was based on 35 U.S.C. §112 and 35 U.S.C. §102 in view of the '572 Patent.
- On April 4, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Stanley Moore and Shoaib Mithani, received a Notice of Allowance in the application leading to the '762 Patent. This served as a prompting reminder to disclose the '572 Patent and the rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were withheld.
- On July 17, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Shoaib Mithani, filed a Request for Continued Examination (RCE) and Information Disclosure Statement (IDS) in the application leading to the '762 Patent. This served as another prompting reminder to disclose the '572 Patent and the

rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were withheld.

- On August 6, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Shoaib Mithani, responded to an outstanding office action in the application leading to the '242 Patent. This served as another prompting reminder to disclose the '572 Patent and the rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were withheld.
- On October 18, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Stanley Moore and Shoaib Mithani, received a second Notice of Allowance in the application leading to the '762 Patent. This served as another prompting reminder to disclose the '572 Patent and the rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were withheld.
- Just twelve days later, on October 30, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation, Stanley Moore, Shoaib Mithani, and Jeffrey Tinker received a rejection in the application leading to the '242 Patent. The rejection was based on 35 U.S.C. §102 in view of the '572 Patent. This served as another prompting reminder to disclose the '572 Patent and the rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were withheld.
- At a time when the rejection in view of the '572 Patent was still outstanding in the application leading to the '242 Patent, on November 8, 2007, one or more of the individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Stanley Moore, paid the issue fee in the application leading to the '762 Patent. This served as another prompting reminder to disclose the '572 Patent and the rejections from the application leading to the '242 Patent to Examiner Wimer in the application leading to the '762 Patent; but they were still withheld.
- The '762 Patent issued on December 25, 2007. The '572 Patent and the rejections from the application leading to the '242 Patent were never disclosed to Examiner Wimer in the application leading to the '762 Patent, despite the numerous prompting reminders and opportunities to disclose them during simultaneous prosecution of the two applications by the same group of prosecution attorneys.

t. Brian Walker of Howison & Arnott, LLP was identified as Fractus' Patent Attorney and was substantively involved with the prosecution of the '432, '431, '782, and '822 Patents. As a result, Mr. Walker had a duty of candor and good faith in dealing with the USPTO,

which included a duty to disclose material information to the USPTO in the prosecution of Fractus patent applications, including the applications leading to the '432, '431, '782, and '822 Patents.

u. The '431 Patent did not issue until July 8, 2008. The '432 Patent did not issue until July 1, 2008. The '782 Patent did not issue until May 5, 2009. Thus, during the more than one to two years from the mailing of the March 12, 2007 first office action in the application leading to the '242 Patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO in the applications leading to the '431, '432, and '782 Patents, including without limitation Carles Puente Baliarda and Jordi Soler Castany, had numerous opportunities to disclose the '572 Patent and Examiner Wimer's rejections in the application leading to the '242 Patent to Examiner Phan in the prosecution of the '431, '432, and '782 Patents. However, each of these individuals withheld these references from Examiner Phan.

v. The '822 Patent did not issue until April 10, 2007. Thus, during the nearly one month from the mailing of the March 12, 2007 first office action in the application leading to the '242 Patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO in the applications leading to the '822 Patent, including without limitation Carles Puente Baliarda, had sufficient opportunity to disclose the '572 Patent and Examiner Wimer's rejections in the application leading to the '242 Patent to Examiner Nguyen in the prosecution of the '822 Patent. However, each of these individuals withheld these references from Examiner Nguyen.

w. In addition to the above reasons of materiality, the '572 Patent is additionally material because it anticipates or renders obvious relevant claims in the '431, '432, '782, '822, and '762 Patents.

x. As identified in the above subparagraphs, the ‘572 Patent and the rejections based thereupon (received in the prosecution of the application leading to the ‘242 Patent) were highly material to claims of the ‘432, ‘431, ‘782, ‘822, and ‘762 Patents.

y. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

z. As identified in the above subparagraphs, the intent to deceive the USPTO and the Examiners examining the applications leading to the ‘432, ‘431, ‘782, ‘822, and ‘762 Patents by one or more of the individuals with a duty of candor and good faith in dealing with the USPTO in the applications leading to the ‘432, ‘431, ‘782, ‘822, and ‘762 Patents is also apparent.

aa. Any inequitable conduct that occurred in the applications leading to the ‘432, ‘431, ‘782, ‘822, and ‘762 Patents spreads to subsequent applications (e.g., continuation, continuation-in-part, divisional applications, etc.) that claim priority to these applications. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del. 2006) *aff’d*, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007).

COUNT TWENTY-FOUR:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NO. 7,312,762

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld at least United States Patent Nos. 7,015,868; 7,123,208; 7,148,850; and 7,202,822 in the Prosecution of the application leading to United States Patent No. 7,312,762.

192. United States Patent No. 7,312,762 (the “‘762 Patent”) is unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information associated with related Fractus patents as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff’s Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. United States Patent No. 7,015,868 (the “‘868 Patent”) issued on March 21, 2006, and is assigned on its face to Fractus, S.A. United States Patent No. 7,123,208 (the “‘208 Patent”) issued on October 17, 2006, and is assigned on its face to Fractus, S.A. United States Patent No. 7,148,850 (the “‘850 Patent”) issued on December 12, 2006, and is assigned on its face to Fractus, S.A. United States Patent No. 7,202,822 (the “‘822 Patent”) issued on April 10, 2007, and is assigned on its face to Fractus, S.A.

c. The application leading to the ‘762 Patent was filed on April 13, 2004 and purportedly claims priority to PCT/EP2001/11914 dated October 16, 2001. The ‘762 Patent issued on December 25, 2007. The ‘762 Patent is assigned on its face to Fractus, S.A.

d. At different points in time, at least Joseph Sauer and David Maiorana of Jones Day, Stanley Moore of Jenkins & Gilchrist (and later Winstead P.C.), Ross Robinson of Jenkins & Gilchrist (and later Winstead P.C.), and Shoaib Mithani of Jenkins & Gilchrist (and later Winstead P.C.), prosecuted the application leading to the ‘762 Patent. Additionally, upon information and belief, Joseph Sauer, David Maiorana, Stanley Moore, Ross Robinson, and Shoaib Mithani discussed and shared prosecution strategies amongst one another in the prosecution of multiple Fractus patents and patent applications, including the ‘868 Patent, the

‘208 Patent, the ‘850 Patent, the ‘822 Patent, and the application leading to the ‘762 Patent. As a result, Joseph Sauer, David Maiorana, Stanley Moore, Ross Robinson, and Shoaib Mithani each had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO in the prosecution of Fractus patent applications, including the application leading to the ‘762 Patent.

e. One or more of Carles Puente Baliarda and Jordi Soler Castany (previously defined as the “Third Fractus Common Inventor Group”) were listed as inventors on one or more of the following patents: the ‘762 Patent, the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent. Additionally, upon information and belief, one or more of the inventors in the Third Fractus Common Inventor Group were substantively involved in the prosecution of the applications leading to the ‘762 Patent, the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent. Accordingly, each person in this Third Fractus Common Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO for each of the ‘762 Patent, the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent.

f. Originally filed Claim 7 of the application leading to the ‘762 Patent recited, in part, “wherein at least a portion of said conducting surface is a multilevel structure.” Originally filed Claim 10 of the application leading to the ‘762 Patent recited, in part, “wherein the shape of at least one loading strip is a space-filling curve.”

g. On October 5, 2006, in the prosecution of the application leading to the ‘762 Patent, Examiner Wimer of the USPTO issued an office action (addressed to Jenkins & Gilchrist, PC), which was received by one or more of Stanley Moore, Ross Robinson, and Shoaib Mithani. Examiner Wimer’s rejection informed one or more of Stanley Moore, Ross

Robinson and Shoaib Mithani that pending Claims 1-21 and 23-27 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,410,322 (the “322 Patent”).

h. On December 27, 2006, in response to Examiner Wimer’s rejection in the application leading to the ‘762 Patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson of Jenkins & Gilchrist, P.C. canceled Claims 1-27 and added New Claims 28-48, of which Claims 28, 39, and 48 were the only independent claims. In particular, New Claim 28 (which issued as Claim 1) recited, in part, “wherein at least a portion of the at least one conducting surface is a multilevel structure comprising a plurality of polygons, all of the plurality of polygons having at least four and the same number of sides, a plurality of the plurality of polygons being electromagnetically coupled via capacitive coupling or ohmic contact to define a plurality of contact regions and wherein, for at least 75% of the plurality of electromagnetically coupled polygons, a contact region is less than 50% of the perimeter of an electromagnetically coupled polygon.” New Claim 39 (which issued as Claim 12) recited, in part, “wherein the at least one conducting strip is shaped as a space-filling curve comprising at least ten segments connected so that no pair of adjacent segments defines a longer straight segment.” New Claim 48 (which issued as Claim 21) recited, in part, “wherein at least a portion of the at least one conducting surface is a multilevel structure comprising a plurality of polygons, all of the plurality of polygons having at least four and the same number of sides, the plurality of polygons being generally identifiable by the free perimeter thereof as a geometrical element and wherein projection of the exposed perimeters of the plurality of polygons defines the least number of polygons necessary to form a generally distinguishable element where polygon perimeters are interconnected, a plurality of the plurality of polygons being electromagnetically coupled via capacitive coupling or ohmic contact to

define a plurality of contact regions and wherein, for at least 75% of the plurality of electromagnetically coupled polygons, a contact region is less than 50% of the perimeter of an electromagnetically coupled polygon.”

i. At least Claim 1 of the ‘868 Patent recites claim elements that are identical or strikingly similar to those of at least New Claims 28 and 48 in the application leading to the ‘762 Patent, as follows:

1. A multi-band antenna including at least one multilevel structure wherein the multilevel structure comprises a set of polygonal or polyhedral elements having the same number of sides or faces, wherein each of said elements is electromagnetically coupled to at least one other of said elements either directly through at least one point of contact or through a small separation providing coupling, wherein for at least 75% of said polygonal or polyhedral elements, the region or area of contact between said polygonal or polyhedral elements is less than 50% of the perimeter or area of said elements, and wherein not all the polygonal or polyhedral elements have the same size and the perimeter of the multilevel structure has a different number of sides than the polygons that compose the multilevel structure.

j. At least Claim 1 of the ‘208 Patent recites claim elements that are identical or strikingly similar to those of at least New Claims 28 and 48 in the application leading to the ‘762 Patent, as follows:

1. A multi-band antenna including at least one multilevel structure wherein the multilevel structure includes at least one antenna region comprising a set of polygonal or polyhedral elements having the same number of sides or faces, wherein each of said elements in said antenna region is electromagnetically coupled to at least one other of said elements in said region either directly through at least one point of contact or through a small separation providing said coupling, wherein for at least 75% of said polygonal or polyhedral elements, the region or area of contact between said polygonal or polyhedral elements is less than 50% of

the perimeter or area of said elements, wherein not all of the polygonal or polyhedral elements have the same size, and wherein the perimeter of the multilevel structure has a different number of sides than the polygons that compose said antenna region, and further wherein a plurality of polygons of said antenna region are generally identifiable as a geometrical element defined by the free perimeter thereof and the projection of ones of the longest exposed perimeters thereof to define the least number of polygons within said region necessary to form said generally distinguishable elements where said polygon perimeters are interconnected.

k. At least Claim 35 of the '850 Patent recites claim elements that are identical or strikingly similar to those of at least New Claim 39 in the application leading to the '762 Patent, as follows:

35. An antenna in which at least one portion of the antenna is shaped as a space-filling curve (hereafter SFC), the SFC including at least ten connected segments, wherein said segments are each smaller than a tenth of an operating free-space wavelength of the antenna and the segments are spatially arranged such that no two adjacent and connected segments form another longer straight segment, wherein none of said segments intersect with another segment other than to form a closed loop, wherein each pair of adjacent segments forms a corner, and wherein any portion of the curve that is periodic along a fixed straight direction of space is defined by a non-periodic curve that includes at least ten connected segments in which no two adjacent and connected segments define a straight longer segment.

l. At least Claim 41 of the '822 Patent recites claim elements that are identical or strikingly similar to those of at least New Claim 39 in the application leading to the '762 Patent, as follows:

41. An apparatus comprising:
 an antenna in which at least one portion of the antenna is
 shaped as a space-filling curve (SFC),
 wherein said SFC comprises a multiplicity of connected
 segments, wherein the segments are spatially arranged
 such that no two adjacent and connected segments form
 another longer straight segment,
 such that the SFC has physical length longer than that of
 any straight line that can be fitted in the same area in
 which the segments of the SFC are arranged, and
 such that the resulting antenna is electrically small as its
 dimensions are less than $\frac{1}{2}\lambda$ of a free-space operating
 wavelength of the antenna.

m. Due to the identical or striking similarity in wording among the New Claims 28, 39, and 48 in the application leading to the '762 Patent and the wording of at least some of the claims of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent, as set forth above in subparagraphs (h)-(l), upon information and belief, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson was aware of and copied the language of New Claims 28, 39, and 48 from at least the claims of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent.

n. In the December 27, 2006 response, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson argued that the '322 Patent (Sonoda) cited in the rejection by Examiner Wimer specifically failed to teach or suggest the elements of New Claims 28, 39, and 48 recited above in subparagraph (h), as follows:

Applicant respectfully submits that Sonoda fails to teach or suggest at least one of the distinguishing features of new independent claim 28, namely, at least one conducting surface having at least a portion that is a multi-level structure comprising a plurality of polygons, all of the plurality of polygons having at least four and the same number of sides, a plurality of the plurality of polygons being electromagnetically coupled via capacitive coupling or ohmic contact to define a plurality of contact regions and wherein, for at least 75% of the plurality of electromagnetically coupled polygons, a contact region is less than 50% of the perimeter of an electromagnetically coupled polygon.

Applicant further respectfully submits that Sonoda fails to teach or suggest at least one of the distinguishing features of new independent claim 39, namely, a loading structure including at least one conducting strip, wherein the at least one conducting strip is shaped as a space-filling curve comprising at least ten segments as claimed.

Applicant further respectfully submits that Sonoda fails to teach or suggest at least one of the distinguishing features of new independent claim 48, namely, at least one conducting surface having at least a portion that is a multilevel structure comprising a plurality of polygons, all of the plurality of polygons having at least four and the same number of sides, the plurality of polygons being generally identifiable by the free perimeter thereof as a geometrical element and projection of the exposed perimeters of the plurality of polygons defining the least number of polygons necessary to form a generally distinguishable element where polygon perimeters are interconnected, a plurality of the plurality of polygons being electromagnetically contact via capacitive coupling or ohmic coupling or ohmic contact to define a plurality of contact regions and wherein, for at least 75% of the plurality of electromagnetically coupled polygons, a contact region is less than 50% of the perimeter of an electromagnetically coupled polygon.

Significantly, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson did not base any arguments to overcome the '322 Patent (Sonoda) on any other language of New Claims 28, 39, or 48. Thus, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson understood that he was relying on the claim limitations copied from the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent as a "point of novelty" to overcome the '322 Patent (Sonoda).

o. On April 4, 2007, in the prosecution of the application leading to the '762 Patent, Examiner Wimer issued a first Notice of Allowance responsive, at least in part, to the December 27, 2006 response filed by Ross Robinson. Thus, upon receiving the Notice of Allowance, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson, understood that the claim elements in New Claims 28, 39, 48 that were copied from the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent, and that formed the thrust of the argument to overcome the '322 Patent (Sonoda), were the primary reasons why New Claims 28-48 had been allowed.

p. In the Notice of Allowance of April 4, 2007, Examiner Wimer also indicated that a patent term adjustment of 479 days was appropriate under 35 U.S.C. §154(b). Thus, upon receiving this Notice of Allowance, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson, understood that the patent term of the '762 Patent would be extended for more than one year beyond the statutory twenty year patent term.

q. On July 17, 2007, Shoaib Mithani filed a Petition Under 37 C.F.R. 1.313(c)(2) to withdraw from issuance the application leading to the '762 Patent. In conjunction with this petition, Shoaib Mithani filed an Information Disclosure Statement. By this time, on July 17, 2007, each of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent had already issued.

r. None of the one or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '762 Patent, including without limitation Stanley Moore, Ross Robinson, and Shoaib Mithani of Jenkins & Gilchrist P.C. (and later Winstead P.C.), Carles Puente Baliarda, and Jordi Soler Castany, ever disclosed the '868

Patent, the '208 Patent, the '850 Patent, or the '822 Patent to Examiner Wimer in the application leading to the '762 Patent.

s. The '868, '208, '850, and '822 Patents are not cumulative to references already of record in the application leading to the '762 Patent, including without limitation any citation of any foreign counterpart of these Fractus patents because the issue of double patenting set forth in detail below is specific to the claims of U.S. Fractus patents, including at least the '868, '208, '850, and '822 Patents.

t. 35 U.S.C. §101 provides that “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” There are generally two types of double patenting rejections. The first is the “same invention” type double patenting based on 35 U.S.C. §101. The second is the “nonstatutory-type” double patenting rejection based on a judicially created doctrine grounded in public policy and which is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent that are not patentably distinguishable from claims in a first patent.

u. 37 C.F.R. §1.321 provides that a terminal disclaimer may be filed to obviate judicially created double patenting in a patent application. In this situation, the entire term, or any terminal part of the term, of a patent to be granted may be disclaimed. Moreover, any patent granted on that application shall be enforceable only for and during such period that said patent is commonly owned with the application or patent which formed the basis for the judicially created double patenting.

v. The failure to cite the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent in the application leading to the '762 Patent is material because due to the identical

or strikingly similar nature of the claims among these patents, as set forth above in subparagraphs (h)-(m), and because each of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent had already issued prior to the issuance of the '762 Patent, Examiner Wimer would have wanted to know of those other Fractus patents so that he could reject New Claims 28-48 for double patenting, such as for judicially created double patenting.

w. One or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '762 Patent, including without limitation Ross Robinson, understood that Fractus S.A. commonly owned the application leading to the '762 Patent, the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent; and further that there was a different inventive entity among these different Fractus patents and applications. Thus, these individuals knew or should have known that the application leading to the '762 Patent would be subject to a double patenting rejection in view of at least the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent.

x. As a result of the double patenting rejection described above in subparagraphs (t)-(w), either New Claims 28-48 would have to be substantially amended, thereby changing the claim scope of issued Claims 1-21 of the '762 Patent, or a terminal disclaimer would have to be filed pursuant to 37 C.F.R. §1.321, which would shorten the term of the '762 Patent and require that each of the '762 Patent, the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent would have to remain under common ownership by Fractus, S.A. in order for the '762 Patent to be enforceable.

y. One or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '762 Patent, including without limitation Ross Robinson, understood the consequences of filing a terminal disclaimer to overcome a double

patenting rejection, including without limitation the consequences outlined above in subparagraph (x).

z. On December 27, 2006, upon filing the response to Examiner Wimer's rejection, one or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Ross Robinson, understood that each of the '868 Patent, the '208 Patent, and the '850 Patent had already issued and that, therefore, the disclosure of these other Fractus patents in the application leading to the '762 Patent would not lead to a mere "provisional" double patenting rejection, but rather that it would lead to an "actual" double patenting rejection.

aa. Each of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent listed the Examiner that examined the corresponding application on its face. From this information available on the face of each issued patent, one or more individuals with a duty of candor and good faith in dealing with the USPTO in the application leading to the '762 Patent, including without limitation Ross Robinson, understood that the '868 Patent and the '208 Patent were examined by Examiner Tho Phan; the '850 Patent and the '822 Patent were examined by Examiner Hoang Nguyen; and the application leading to the '762 Patent was being examined by a different examiner, Examiner Michael Wimer.

bb. On October 18, 2007, in the prosecution of the application leading to the '762 Patent, Examiner Wimer issued a second Notice of Allowance, and indicated that a patent term adjustment of 479 days was appropriate under 35 U.S.C. §154(b).

cc. On May 18, 2007, five months prior to the mailing of the Notice of Allowance on October 18, 2007, the United States Court of Appeals for the Federal Circuit (the "Federal Circuit") rendered its decision in *McKesson Information Solutions, Inc. v. Bridge*

Medical, Inc., 487 F.3d 897 (Fed. Cir. 2007). *McKesson* affirmed a district court finding of inequitable conduct on three separate grounds, including a finding of inequitable conduct by an attorney that failed to disclose a notice of allowance issued from a copending case in the prosecution of another application where such a disclosure could have given rise to a “conceivable” double patenting rejection, despite the fact that those applications were before the same examiner. The *McKesson* case garnered a lot of attention among lawyers and patent agents in the patent bar. One or more individuals with a duty of candor and good faith in dealing with the USPTO, including without limitation Stanley Moore, Ross Robinson, Shoaib Mithani knew or should have known about the *McKesson* case and that it required them to disclose the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent to Examiner Wimer in the application leading to the ‘762 Patent.

dd. On November 8, 2007, Stanley Moore paid the issue fee and thereby allowed the ‘762 Patent to issue on December 25, 2007 with a purported increase in patent term of 479 days. Therefore, rather than disclose other Fractus patents, such as the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent, that would have decreased the patent term of the ‘762 Patent and impose other obligations on Fractus, S.A. regarding maintaining the commonality of ownership, one or more of those with a duty of candor and good faith in dealing with the USPTO instead withheld the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent from Examiner Wimer and accepted a patent term increase of 479 days for the ‘762 Patent.

ee. As identified in the above subparagraphs, the ‘868 Patent, the ‘208 Patent, the ‘850 Patent, and the ‘822 Patent were highly material to the claims of the ‘762 Patent, at least as follows:

- **There were copied claim elements among the relevant Fractus patents:** Ross Robinson copied the identical or strikingly similar language of claims of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent into the New Claims 28, 39, and 48 of the application leading to the '762 Patent, and relied on this claim language in arguments to overcome the '322 Patent during prosecution.
- **Multiple different examiners examined the Fractus patents:** Examiner Wimer examined the application leading to the '762 Patent whereas Examiner Phan examined the applications leading to the '868 and '208 patents and Examiner Nguyen examined the applications leading to the '850 and '822 Patents.
- **The '868, '208, '850, and '822 Patents were withheld from the USPTO in the application leading to the '762 Patent.** One or more of the individuals owing a duty of candor and good faith to the USPTO in the application leading to the '762 Patent knowingly withheld the '868, '208, '850, or '822 Patents from the USPTO.
- **The '868, '208, '850, and '822 Patents are not cumulative of other references of record in the '762 Patent:** The '868, '208, '850, and '822 Patents are not cumulative to references already of record in the application leading to the '762 Patent because the issue of double patenting is specific to the claims of at least these U.S. Fractus patents.
- **The term of the '762 Patent should be reduced, not extended:** Had a double patenting rejection been properly made, the '762 Patent would not be entitled to a 479 day patent term extension. Rather, it would have a reduced patent term and Fractus would also be subject to other obligations regarding common ownership of the '762 Patent, and the '868, '208, '850, or '822 Patents.

ff. As identified in the above subparagraphs, the intent to deceive the USPTO and Examiner Wimer in the application leading to the '762 Patent by one or more of the individuals with a duty of candor and good faith in dealing with the USPTO is also apparent based on at least the following pattern of conduct:

- **There were copied claim elements among the relevant Fractus patents:** Ross Robinson copied the identical or strikingly similar language of claims of the '868 Patent, the '208 Patent, the '850 Patent, and the '822 Patent into the New Claims 28, 39, and 48 of the application leading to the '762 Patent, and relied on this claim language in arguments to overcome the '322 Patent during prosecution.
- **Multiple different examiners examined the Fractus patents:** Examiner Wimer examined the application leading to the '762 Patent whereas Examiner Phan examined the applications leading to the '868 and '208 patents and

Examiner Nguyen examined the applications leading to the '850 and '822 Patents.

- **The '868, '208, '850, and '822 Patents were withheld from the USPTO in the application leading to the '762 Patent.** One or more of the individuals owing a duty of candor and good faith to the USPTO in the application leading to the '762 Patent knowingly withheld the '868, '208, '850, or '822 Patents from the USPTO despite the fact that: (a) these other Fractus patents were already issued and would likely lead to a double patenting rejection due to the copied claim language in the application leading to the '762 Patent; and (b) the Federal Circuit rendered its decision in *McKesson* during the prosecution of the application leading to the '762 Patent, and the *McKesson* case found inequitable conduct for failure to cite a notice of allowance from a co-pending application that could have conceivably been used in a double patenting rejection.
- **A patent term extension was taken despite the fact that a double patenting rejection would have led to a reduced patent term for the '762 Patent and an obligation that the '762 Patent remain under common ownership with the '868, '208, '850, and '822 Patents.** One or more of the individuals owing a duty of candor and good faith to the USPTO in the application leading to the '762 Patent knowingly took a 479 day patent term extension despite the fact that a double patenting rejection based on one or more of the '868, '208, '850, or '822 Patents would have led to a reduced patent term for the '762 Patent, and further obligations regarding maintaining common ownership with Fractus among these Fractus patents.
- **There were multiple opportunities to cite the '868, '208, '850, and '822 Patents in the prosecution of the application leading to the '762 Patent.** One or more of the individuals owing a duty of candor and good faith to the USPTO in the application leading to the '762 Patent had numerous opportunities to disclose the '868, '208, '850, or '822 Patents in the application leading to the '762 Patent during the nearly twelve months from December 27, 2006 when the copied claims were introduced as New Claims 28, 39, and 48, and December 25, 2007 when the '762 Patent issued.

gg. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

hh. Any inequitable conduct that occurred in the application leading to the ‘762 Patent spreads to subsequent applications (e.g., continuation, continuation-in-part, divisional applications, etc.) that claim priority to these applications. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del. 2006) *affd*, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007).

COUNT TWENTY-FIVE:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NO. 7,312,762

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld Highly Material Information, Including Japanese Patent JP 10-303637, From the USPTO In Connection With Prosecution of the ‘762 Patent

193. The ‘762 Patent is further unenforceable because Fractus and/or its patent attorneys and/or others substantively involved in the prosecution before the USPTO withheld highly material information from the USPTO with an intent to deceive the USPTO as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff’s Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. Fractus Chinese Patent Application No. CN2001823716 (the “‘716 Chinese Application”), which issued as Chinese Patent CN100382385 (the “Chinese ‘385 Patent”), was a foreign counterpart to the application that led to issuance of the ‘762 Patent, and claims priority to the same PCT application as does the ‘762 Patent: PCT/EP01/11914.

c. One or more of Fractus’s U.S. and/or foreign patent attorneys were substantively involved in the prosecution of the ‘716 Chinese Application. For example, one or more attorneys from China Council for the Promotion of International Trade (CCPIT) Patent and

Trademark Law Office was substantively involved on behalf of Fractus in the prosecution of the ‘716 Chinese Application.

d. One or both of the inventors of the ‘716 Chinese Application, Carles Puente Baliarda and Jordi Soler Castany, was substantively involved with and/or assisted in prosecution of the ‘716 Chinese Application.

e. One or more of Ross Robinson, Stanley Moore, Shoaib Mithani, and Michael Maddox, of Winstead PC (and/or Jenkins & Gilchrist), and David Maiorana and Joseph Sauer of Jones Day, were substantively involved in the prosecution of the application leading to the ‘762 Patent (i.e., Application Serial No. 10/822,933), and accordingly, each had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO. The application leading to the ‘762 Patent was examined by Examiner Michael Wimer.

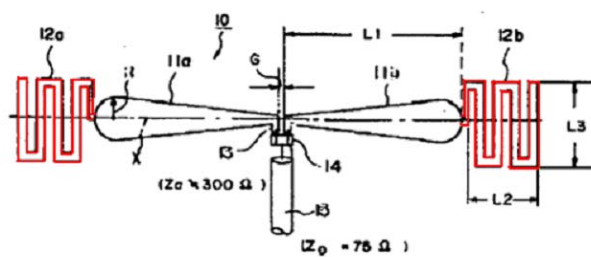
f. Upon information and belief, one or both of the inventors of the ‘762 Patent, Carles Puente Baliarda and Jordi Soler Castany, was substantively involved with and/or assisted in prosecution of the application leading to ‘762 Patent. Accordingly, each had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO. That information would include, for example, material information disclosed in the prosecution of the ‘716 Chinese Application.

g. On information and belief, one or more Chinese patent attorneys consulted with and/or received instructions from and/or shared prosecution strategies with one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda, Jordi Soler Castany, and other others at Fractus.

h. In the '716 Chinese Application, the Chinese patent examiner issued an office action on or around February 16, 2007 rejecting claims in view of Japanese Patent JP 10-303637 ("the '637 JP Reference"). Accordingly, at least as early as this time, one or more of Fractus's U.S. and/or foreign patent attorneys substantively involved in the prosecution of the '716 Chinese Application, and/or Carles Puente Baliarda and Jordi Soler Castany, thereby became aware of the '637 JP Reference.

i. The '637 JP Reference, which was published on November 13, 1998, is prior art to the '762 Patent, which claims as its earliest priority date the October 16, 2001 filing date of PCT/EP01/11914. The '637 JP Reference is material because it anticipates or renders obvious relevant claims of the '762 Patent.

j. As an example of the preceding subparagraph, the '637 JP Reference anticipates or renders obvious Independent Claim 12 of the '762 Patent (Figure from the '637 JP Reference on the left and Claim 12 of the '762 Patent on the right):



12. A loaded antenna comprising:
a radiating element comprising a first part and a second part;
the first part comprising at least one conducting surface;
and
the second part comprising a loading structure, the loading structure comprising at least one conducting strip connected at at least one point on an edge of the at least one conducting surface, the maximal width of the at least one conducting strip being less than a quarter of the longest straight edge of the conducting surface;

wherein the at least one conducting strip is shaped as a space-filling curve comprising at least ten segments connected so that no pair of adjacent segments defines a longer straight segment and, if the curve is periodic along a fixed straight direction of space, the period is defined by a non-periodic curve comprising at least ten connected segments and no pair of the adjacent and connected segments defines a straight longer segment; and
wherein the space-filling curve intersects with itself at most only at its initial and final point.

k. On information and belief, because inventors Carles Puente Baliarda and Jordi Soler Castany were named inventors on both applications and substantively involved in both, they were aware of the '637 JP Reference and failed to disclose that reference during

prosecution of the application leading to the '762 Patent. Further on information and belief, the attorneys substantively involved on behalf of Fractus in prosecuting the '716 Chinese Application, and inventors Carles Puente Baliarda and Jordi Soler Castany, discussed and shared prosecution strategies amongst one another, and with Fractus's U.S. Patent attorneys handling the prosecution of the application that led to the '762 Patent (including one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana and Joseph Sauer), either directly or through communications with the named inventors or others at Fractus.

l. However, despite becoming aware of the '637 JP Reference and the rejections by the Chinese patent examiner of similar claims to those then pending in the application leading to the '762 Patent, one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda and Jordi Soler Castany failed to take this first opportunity to disclose the reference to Examiner Wimer in the prosecution of the application leading to the '762 Patent.

m. Thereafter, on or around August 21, 2007, by and through its Chinese patent counsel, Fractus responded to the office action in the '716 Chinese Application, and argued the patentability of the claims over the '637 JP Reference. On information and belief, because the claims were amended to match the limitations of claims pending in the application leading to the '762 Patent in order to overcome the '637 JP Reference, Fractus's Chinese patent counsel was in communication with/receiving instructions from Fractus's U.S. patent counsel and/or others at Fractus, including one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda and Jordi Soler Castany, and one or more of these persons was therefore aware of the '637 JP Reference and the Chinese patent examiner's rejections. However, despite this prompting reminder and

these internal communications/coordination of strategy, one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda and Jordi Soler Castany failed to take this second opportunity to disclose the reference to Examiner Wimer in the prosecution of the application leading to the ‘762 Patent.

n. Then, on or around December 10, 2007, the Chinese patent examiner issued another office action in the ‘716 Chinese Application, again rejecting claims in view of the ‘637 JP Reference. However, despite this next prompting reminder, one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda and Jordi Soler Castany failed to take this third opportunity to disclose the reference to Examiner Wimer in the prosecution of the application leading to the ‘762 Patent.

o. Moreover, one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana and/or Joseph Sauer was also substantively involved in the prosecution of Fractus Application Serial No. 11/824,823 (which issued as U.S. Patent 7,541,997 (“the ‘997 Patent”)), which is a continuation of the ‘762 Patent. One or more of these attorneys, who were also substantively involved in the prosecution of the application leading to the ‘762 Patent, became aware of the ‘637 JP Reference. Indeed, recognizing the materiality of the reference to the subject matter of the ‘997 Patent (and, by virtue of their relationship, the ‘762 Patent), Fractus by and through one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana and/or Joseph Sauer disclosed the ‘637 JP Reference to the USPTO on June 6, 2008 in the application leading to the ‘997 Patent (although Fractus did not disclose the Chinese patent examiner’s rejections therein).

p. After the time that the Chinese patent examiner first identified the ‘637 JP Reference and issued rejections in view of it (on or around February 16, 2007), one or more of

Ross Robinson, Stanley Moore, Shoaib Mithani, and/or Michael Maddox of Winstead PC (or Jenkins & Gilchrist), were substantively involved in the following actions in the application leading to the ‘762 Patent

- On February 23, 2007, Shoaib Mithani signed and submitted an amendment and remarks in the application leading to the ‘762 Patent. However, at that time, Shoaib Mithani did not disclose to Examiner Wimer the ‘637 JP Reference or the Chinese patent examiner’s rejections.
- On June 26, 2007, Shoaib Mithani signed and submitted an issue fee payment in the application leading to the ‘762 Patent. However, at that time, Shoaib Mithani did not disclose to Examiner Wimer the ‘637 JP Reference or the Chinese patent examiner’s rejections.
- On June 26, 2007, Shoaib Mithani also signed and submitted a claim for priority to PCT/EP01/11914 (the same priority application as for the ‘716 Chinese Application) in the application leading to the ‘762 Patent. However, at that time, Shoaib Mithani did not disclose to Examiner Wimer the ‘637 JP Reference or the Chinese patent examiner’s rejections.
- On July 17, 2007, Shoaib Mithani signed and submitted a Petition to Withdraw from Issue and Request for Continued Examination in the application leading to the ‘762 Patent, in order to disclose additional prior art in an Information Disclosure Statement. However, at that time, Shoaib Mithani did not disclose to Examiner Wimer the ‘637 JP Reference or the Chinese patent examiner’s rejections in that Information Disclosure Statement.
- On November 7, 2007, Stanley Moore signed and submitted an issue fee payment in the application leading to the ‘762 Patent. However, at that time, Stanley Moore did not disclose to Examiner Wimer the ‘637 JP Reference or the Chinese patent examiner’s rejections in that Information Disclosure Statement.

q. On information and belief, the ‘637 JP Reference and the rejections of the Chinese patent examiner in view of the ‘637 JP Reference, which were material to the patentability of the ‘762 Patent, were withheld from Examiner Wimer during prosecution of the ‘762 Patent, with intent to deceive, by one or more of Ross Robinson, Stanley Moore, Shoaib Mithani, Michael Maddox, David Maiorana, Joseph Sauer, Carles Puente Baliarda, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO.

r. On information and belief Examiner Wimer in examining the '762 Patent would have wanted to know about the '637 JP Reference and the Chinese patent examiner's rejections under the reference. The '637 JP Reference and the Chinese patent examiner's rejection were thus material to the claims of the '762 Patent.

s. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

t. Accordingly, for at least these additional reasons, '762 Patent is unenforceable due to inequitable conduct.

COUNT TWENTY-SIX:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,015,868,
7,123,208, 7,394,432, 7,397,431 AND 7,528,782

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Knowingly Pursued Claims They Knew Were Invalid and Intentionally Withheld the Puente Dissertation in the Prosecution of the '868 Patent, the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent.

194. The Multilevel Antenna Patent Family is additionally unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO violated a duty of candor and good faith in dealing with the USPTO as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. At different points in time, at least Joseph Sauer of Jones Day; David Maiorana of Jones Day, and Brian Walker of Howison & Arnott, LLP prosecuted one or more of the applications in the Multilevel Antenna Patent Family (these individuals collectively referred to as the “Multilevel Prosecution Group”).

c. The individuals in the Multilevel Prosecution Group owed a duty of candor and good faith in dealing with the USPTO in the prosecution of applications in the Multilevel Antenna Patent Family.

d. Carles Puente Baliarda of the Fractus Multilevel Inventor Group is listed as the author of a “Ph.D. Dissertation” entitled “Fractal Antennas” (FRACTUSFH010608 - FRACTUSFH010888, hereinafter referred to as the “Puente Dissertation” or “Puente’s Dissertation”).

e. The Puente Dissertation lists a publication date of May 1997 — more than two years prior to the earliest alleged priority date of applications in the Multilevel Antenna Patent Family.

f. The Puente Dissertation was not disclosed to the USPTO in the prosecution of U.S. Patent Application No. 10/102,568 (the “‘568 Application”) and U.S. Patent Application No. 10/963,080 (the “‘080 Application,” which issued as the ‘868 Patent).

g. Upon information and belief, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was aware of or had possession of the Puente Dissertation during the prosecution of the ‘568 Application and/or the ‘080 Application.

h. Carles Puente Baliarda of the Fractus Multilevel Inventor Group was aware of the Puente Dissertation because he was listed as the author of the publication.

i. Inventors in the Fractus Multilevel Inventor Group were aware of the Puente Dissertation because at various points in time, during the prosecution of the applications in the Multilevel Antenna Patent Family, they cited the Puente Dissertation in papers they authored.

j. Example papers citing the Puente Dissertation that are authored by one or more of the inventors in the Fractus Multilevel Inventor Group include, but are not limited to:

- *Broadband Triple-Frequency Microstrip Patch Radiator Combining a Dual-Band Modified Sierpinski Fractal and a Monoband Antenna*; Anguera, J.; Martinez-Ortigosa, E.; Puente, C.; Borja, C.; Soler, J.; *Antennas and Propagation, IEEE Transactions on*, Volume: 54 , Issue: 11, Part: 2; 2006, Page(s): 3367 - 3373.
- *The Fractal Hubert Monopole: A Two-Dimensional Wire*, Anguera, J. Puente, C. Martinez, E. Rozan, E.; *MICROWAVE AND OPTICAL TECHNOLOGY LETTERS*; 2003, VOL 36; PART 2, pages 102-104.
- *The Koch Monopole: A Small Fractal Antenna*: Baliarda, C. P. Romeu, J. Cardama, A.; *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*; 2000, VOL 48; PART 11, pages 1773-1781
- *MOD-P SIERPINSKI FRACTAL MULTIBAND ANTENNA*; Soler, J. Romeu, J. Puente, C.; *PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION JAPAN*; 2000, VOL 3, pages 1075-1078.
- *Iterative network models to predict the performance of Sierpinski fractal antennas and networks*; Borja, C.; Puente, C.; *Antennas and Propagation Society International Symposium*, 1999; IEEE; 1999 , Page(s): 652 - 655 vol.1.

k. One or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO withheld the Puente Dissertation from the USPTO in the prosecution of the '568 Application and/or the '080 Application.

l. In the prosecution of the '568 Application, the Patent Examiner rejected all the claims as being anticipated by ES2112163 (the "'163 Application"), which includes the following figure:



m. Carles Puente Baliarda of the Fractus Multilevel Inventor Group is listed as an inventor of ES2112163.

n. Upon information and belief, one or more of the inventors in the Fractus Multilevel Inventor Group and/or others owing a duty of candor and good faith in dealing with the USPTO were in communication with one or more of the individuals in the Multilevel Prosecution Group on prosecution strategies for the Multilevel Antenna Patent Family. For example, upon information and belief, Carles Puente Baliarda provided arguments to one or more of the individuals in the Multilevel Prosecution Group for applications in the Multilevel Antenna Patent Family at least because Carles Puente Baliarda was also heavily involved in the prosecution of foreign European counterparts of the Multilevel Antenna Patent Family.

o. In response to the anticipation rejection based on ES2112163 in the '568 Application, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in

dealing with the USPTO including, but not limited to, David Maiorana of Jones Day had all the claims cancelled (Claims 1-21) and provided new claims (Claims 22-59) in the '568 Application.

p. The new claims (Claims 22-59) referenced in the preceding subparagraph all included at least the following new limitation: "wherein not all the polygonal or polyhedral elements have the same size."

q. With the new claims (Claims 22-59) referenced in the preceding subparagraphs, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO including, but not limited to, David Maiorana of Jones Day argued that the new claims were novel over the '163 Application:

The '163 application also does not teach or suggest the claimed invention because ***the elements disclosed in the antennas of the '163 application are all the same size*** (e.g., the dark triangles in Figs. 3 and 9 of the '163 application). The white areas shown in Figures 3 and 9 of the '163 application are the empty spaces between the black triangle-shaped element.

(5-26-2004 Office Action Response for the '568 Application at 7, Emphasis added).

r. While arguments in the preceding subparagraph were being made, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew of the existence of other undisclosed prior art that taught "polygonal" elements of a multilevel antenna that were not all the "same size." Examples include the following "Parany Antenna" from the Puente Dissertation:

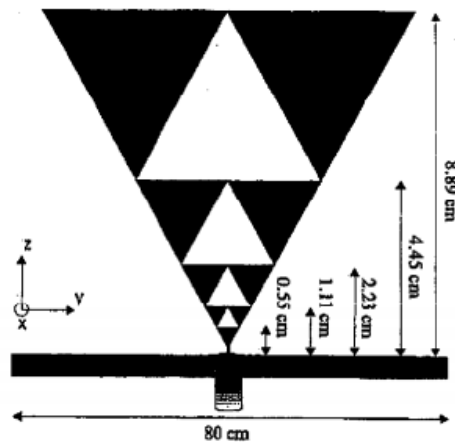


Fig. 5.30 The Parany antenna.

(Page 200 of the Puente Dissertation, FRACTUSFH 010819).

s. The withheld Puente Dissertation contained information that refutes or is inconsistent with arguments made concerning patentability of the claims in the '568 Application. Therefore, it is material to the prosecution of applications in the Multilevel Antenna Family.

t. In response to the representation by one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO, that the "point of novelty" of the invention lay in elements not being the "same size," in conjunction with not having been provided the Puente Dissertation, the Examiner of the '568 Patent Application decided to allow the '568 Patent Application.

u. With the above actions, deceptive intent can be inferred. As previously held by the Federal Circuit, "a trial court may infer deceptive intent based on a showing that a patentee withheld references with which it was intimately familiar and which were inconsistent with its own patentability arguments to the PTO." *Agfa Corp. v. Creo Products*, 451 F.3d 1366, 1378 (Fed. Cir. 2006). Here, Carles Puente Baliarda was intimately familiar with his own dissertation, the Puente Dissertation. And, Carles Puente Baliarda presented arguments that were

inconsistent with the teachings of the withheld Puente Dissertation. These presented arguments and amended claims formed the “point of novelty” that resulted in a United States patents examiner deciding to allow the ‘568 Application.

v. In the ‘080 Application, a continuation of the ‘568 Application, over 900 other references were provided to the USPTO, but the Puente Dissertation was again not provided.

w. The ‘080 Application issued as the ‘868 Patent on March 21, 2006, almost nine years after the Puente Dissertation was published. Thus, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO had numerous opportunities to disclose the Puente Dissertation in the ‘080 Application.

x. One or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO buried the Examiner with over 900 other references, but continued to withhold the highly material Puente Dissertation through issuance of the ‘080 Application as the ‘868 Patent.

y. In addition to the above reasons of materiality, the Puente Dissertation is additionally material because it anticipates or renders obvious relevant claims in the Multilevel Antenna Patent Family. As a non-limiting example, the Puente Dissertation anticipates or renders obvious all features of Independent Claim 1 of the ‘868 Patent.

z. By intentionally withholding the Puente Dissertation, and/or by advancing arguments in favor of patentability that contained, as the primary distinguishing element, a feature that was not disclosed in any of the prior art before the examiner, but was readily

apparent in the undisclosed Puente Dissertation, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to obtain allowance of claims that would not otherwise be allowable over the Puente Dissertation.

aa. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

bb. One or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by withholding the Puente Dissertation from the USPTO in the prosecution of applications of the Multilevel Patent Family.

cc. One or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by advancing arguments that were refuted or inconsistent with the teachings of the Puente Dissertation in the prosecution of applications of the Multilevel Patent Family.

dd. One or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by pursuing claims that they knew were invalid over undisclosed prior art such as, but not limited to, the Puente Dissertation, in applications of the Multilevel Patent Family.

ee. Any inequitable conduct that occurred in the '568 Application or the '080 Application spread to children that claimed priority to such applications, including the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent. Accordingly, such children applications and/or patents would also be unenforceable due to inequitable conduct. *Fox Industries, Inc. v. Structural Preservation Systems, Inc.*, 922 F.2d 801, 804, 17 U.S.P.Q.2d 1579 (Fed. Cir. 1990); *eSpeed, Inc. v. Brokertec USA, L.L.C.*, 417 F. Supp. 2d 580, 79 U.S.P.Q.2d 1258, 1269 (D. Del. 2006) aff'd, 480 F.3d 1129, 82 U.S.P.Q.2d 1183 (Fed. Cir. 2007).

COUNT TWENTY-SEVEN:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,148,850 AND 7,202,822

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Knowingly Misrepresented the State of the Art in the Prosecution of the '850 Patent, the '822 Patent, and the Parent Application of the '850 Patent and the '822 Patent and Intentionally Withheld Material References in the Parent Application of the '850 Patent and the '822 Patent

195. The '850 Patent and the '822 Patent are additionally unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO violated a duty of candor and good faith in dealing with the USPTO as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. Each of Carles Puente Baliarda; Edouard Jean Louis Rozan; and Jaime Anguera Pros (hereinafter, the "Space Filling Inventor Group") were listed as inventors on the applications of the Space Filling Miniature Patent Family.

c. Each inventor in the Space Filling Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO.

d. Additionally, upon information and belief, one or more of the inventors in the Space Filling Inventor Group were substantively involved in the prosecution of one or more of applications in the Space Filling Miniature Patent Family.

e. At different points in time, at least Joseph Sauer of Jones Day; David Maiorana of Jones Day; James Finder of Ostrolenk, Faber, Gerb & Soffen, LLP; and William Gray III of Ostrolenk, Faber, Gerb & Soffen, LLP; and Brian Walker of Howison & Arnott, LLP prosecuted one or more applications in the Space Filling Miniature Patent Family (these individuals collectively referred to as the “Space Filling Prosecution Group”).

f. The individuals in the Space Filling Prosecution Group owed a duty of candor and good faith in dealing with the USPTO in the prosecution of applications in the Space Filling Miniature Patent Family.

g. The following statement is contained in each of the applications of the Space Filling Miniature Patent Family (hereinafter the “Hilbert and Peano Statement,” emphasis added):

“Some of the geometries described in the present invention are inspired in the geometries studied already in the XIX century by several mathematicians such as Giuseppe ***Peano*** and David ***Hilbert***. In all said cases the curves were studied from the mathematical point of view but were ***never used for any practical engineering application.***”

h. On July 22, 2002, the inventors in the Space Filling Inventor Group each signed a declaration for applications in the Space Filling Miniature Patent Family stating among other things, “I hereby state that I have reviewed and understand the contents of the above identified specification”.

i. Because of the signed declarations in the preceding subparagraph, one or more of the inventors in the Space Filling Inventor Group was aware of the Hilbert and Peano Statement.

j. Upon information and belief, one or more of the inventors in the Space Filling Inventor Group requested that the Hilbert and Peano Statement be incorporated in applications of the Space Filling Miniature Patent Family.

k. The Hilbert and Peano Statement suggests to readers that the “geometries” of Hilbert and Peano were “never used for any practical engineering application.”

l. When read in context with the remainder of the specification, the Hilbert and Peano Statement also suggests that the applications of the Space Filling Miniature Patents were applying Hilbert and Peano geometries to antennas for the first time.

m. The Hilbert and Peano statement was a misrepresentation of when Hilbert and Peano “geometries” were first applied to antennas. The Puente Dissertation applied Hilbert and Peano geometries to antennas more than two years before the purported priority date of applications in the Space Filling Miniature Patent Family.

n. Because the Puente Dissertation lists a publication date of May 1997 — more than two years prior to the earliest alleged priority date of applications in the Space Filling Miniature Patent Family, the Puente Dissertation qualifies as prior art to each of the applications in the Space Filling Miniature Patent Family under 35 U.S.C. § 102(b).

o. Because Carles Puente Baliarda of the Space Filling Inventor Group applied Hilbert and Peano geometries to antennas in the Puente Dissertation more than two years before filing an application on the same concept, he was barred from seeking patent protection for an antenna that had a Hilbert and Peano geometry.

p. Knowing that he was barred from seeking patent protection on Hilbert and Peano geometries for antennas, Carles Puente Baliarda of the Space Filling Inventor Group presented the Hilbert and Peano curves to the world, again, misrepresenting to the world that “geometries” of Hilbert and Peano were “never used for any practical engineering application.”

q. Upon information and belief, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was aware of or had possession of the Puente Dissertation during the prosecution of applications in the Space Filling Miniature Patent Family.

r. Carles Puente Baliarda of the Space Filling Inventor Group was aware of the Puente Dissertation because he was listed as the author of the publication.

s. Inventors in the Space Filling Inventor Group were aware of the Puente Dissertation because they cited the Puente Dissertation in papers they authored.

t. Example papers citing the Puente Dissertation that are authored by one or more of the inventors in the Space Filling Inventor Group include, but are not limited to:

- *Broadband Triple-Frequency Microstrip Patch Radiator Combining a Dual-Band Modified Sierpinski Fractal and a Monoband Antenna*; Anguera, J.; Martinez-Ortigosa, E.; Puente, C.; Borja, C.; Soler, J.; *Antennas and Propagation, IEEE Transactions on*, Volume: 54 , Issue: 11 , Part: 2; 2006 , Page(s): 3367 - 3373.
- *The Fractal Hubert Monopole: A Two-Dimensional Wire*; Anguera, J. Puente, C. Martinez, E. Rozan, E.; *MICROWAVE AND OPTICAL TECHNOLOGY LETTERS*; 2003, VOL 36; PART 2, pages 102-104.
- *The Koch Monopole: A Small Fractal Antenna*: Baliarda, C. P. Romeu, J. Cardama, A.; *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*; 2000, VOL 48; PART 11, pages 1773-1781
- *MOD-P SIERPINSKI FRACTAL MULTIBAND ANTENNA*; Soler, J. Romeu, J. Puente, C.; *PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON ANTENNAS AND PROPAGATION JAPAN*; 2000, VOL 3, pages 1075-1078.

- *Iterative network models to predict the performance of Sierpinski fractal antennas and networks*; Borja, C.; Puente, C.; Antennas and Propagation Society International Symposium, 1999. IEEE; 1999 , Page(s): 652 - 655 vol.1.

u. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew or should have known that the Hilbert and Peano Statement was a mischaracterization of the state of the art.

v. The following are figures from the Puente Dissertation, which has a publication date of May 1997, and the Space Filling Miniature Patent Family, which has a purported priority date of January 19, 2000:

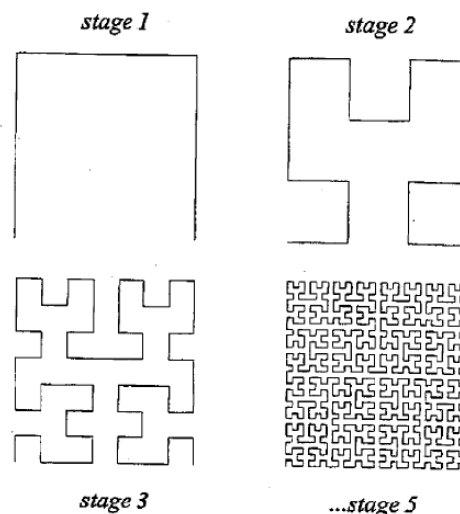
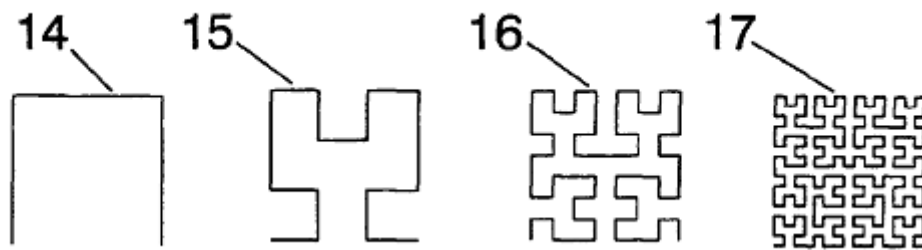


Fig. 2.6 The self-avoiding space-filling Hilbert curve

(Puente Dissertation, page 12, FRACTUSFH 010631)



(FIGURE 6 of U.S. Application No. 11/110,052 of the Space Filling Miniature Patent Family).

w. The figures in the preceding sub-paragraph show Hilbert curves in the Puente Dissertation and Hilbert curves in the applications of the Space Filling Miniature Patent Family.

x. Among other statements, the Puente Dissertation states the following:

- “The aim of this thesis is to explore the feasibility of fractal shapes for the design of multiwavelength and small antenna.” Puente Dissertation, Page 3.
- “Many fractal curves such as the Koch, Minkowski, Peano and Hilbert curves can be fitted in a finite area although they have an infinite length.” Puente Dissertation, Page 3.
- “. . . [the Peano and Hilbert curves] are both space-filling curves, which means that they pass through every point in the squared region they are inscribed in.” Puente Dissertation, Page 12.
- “Other planar, non-fractal space filling like curves appeared as good small antennas too” Puente Dissertation, Page 261.

y. The teachings of the Puente Dissertation refutes or is inconsistent with the Hilbert and Peano Statement. Accordingly, the Puente Dissertation is material to the prosecution of applications in the Space Filling Miniature Patent Family.

z. Given the above statements from the Puente Dissertation and other statements in the Puente Dissertation, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew or should have known that the Hilbert and Peano “geometries” were not simply studied from the “mathematical point of view” as indicated in the Hilbert and Peano Statement, but were specifically considered as being used in antennas in what the Puente Dissertation referred to as a “space-filling curve.”

aa. At a minimum, given that Carles Puente Baliarda was the author of the Puente Dissertation and the first-named inventor of Space Filling Miniature Patent Family, he

knew that the Hilbert and Peano Statement was a mischaracterization, as shown by his own words in his earlier publication, the Puente Dissertation.

bb. The Puente Dissertation was not provided to the USPTO in the prosecution of the '635 Patent Application.

cc. With the above actions, deceptive intent can be inferred. As previously held by the Federal Circuit, "a trial court may infer deceptive intent based on a showing that a patentee withheld references with which it was intimately familiar and which were inconsistent with its own patentability arguments to the PTO." *Agfa Corp. v. Creo Products*, 451 F.3d 1366, 1378 (Fed. Cir. 2006). Here, Carles Puente Baliarda was intimately familiar with own dissertation, the Puente Dissertation. And, Carles Puente Baliarda presented arguments in the Hilbert and Peano Statement that were inconsistent with the withheld Puente Dissertation.

dd. Not only did one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO mischaracterize the state of the art as it existed prior to the earliest alleged priority date of an application in the Space Filling Miniature Patent Family, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO also withheld the Puente Dissertation, itself, from the USPTO in the prosecution of the '635 Patent Application.

ee. Although the Puente Dissertation was eventually provided to the USPTO in the prosecution of the application leading to the '850 Patent, it was not disclosed until after the USPTO had already allowed claims, and not until after issue fees were paid.

ff. The misrepresentation of the Hilbert and Peano Statement had the effect of obscuring the relevance of the Puente Dissertation. Because the Puente Dissertation is almost 300 pages long, relevant portions of the Puente Dissertation that refute or are inconsistent with the Hilbert and Peano Statement are not immediately apparent.

gg. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO, including, but not limited to, Carles Puente Baliarda had possession of the Puente Dissertation for up to nine years before disclosing it to the USPTO.

hh. Additionally, despite having access to or possession of the Puente Dissertation for four years during the prosecution of the applications of the Space Filling Miniature Patent Family, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO withheld the Puente Dissertation and waited until after the USPTO had already allowed claims of the '850 Patent of the Space Filling Miniature Patent Family before providing the Puente Dissertation.

ii. Despite the ultimate disclosure of the Puente Dissertation in applications of the Space Filling Miniature Patent Family, the Hilbert and Peano Statement was never corrected in the applications of the Space Filling Miniature Patent Family.

jj. When the Puente Dissertation was finally provided to the PTO, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO made no attempt to correct the misrepresentation of the Hilbert and Peano Statement in the specification. Rather, one or more of the inventors in the Space Filling Inventor Group,

individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO continued to perpetuate the mischaracterization provided by the Hilbert and Peano statement.

kk. The Puente Dissertation is material to the patentability of the claims in the Space Filling Miniature Patent Family because it anticipates or renders obvious all elements of the relevant claims.

ll. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

mm. By withholding the Puente Dissertation for four years during the substantive examination of the claims in the applications leadings up to the '850 Patent, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to obtain allowance of claims that would not otherwise be allowable had the Puente Dissertation been provided earlier.

nn. By mischaracterizing the state of the art and/or failing to correct this mischaracterization, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to obtain allowance of claims that would not otherwise be allowable absent the misrepresentation and/or correction of the misrepresentation.

oo. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by knowingly mischaracterizing the state of the art, for example, with the Hilbert and Peano Statement and/or failing to correct the misrepresentation of the state of the art in the prosecution of applications of the Space Filling Miniature Patent Family.

COUNT TWENTY-EIGHT:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,148,850 AND 7,202,822

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Concealed a New Matter Violation and Withheld Material Information in the Prosecution of the '850 Patent and the '822 Patent

196. The '850 Patent and the '822 Patent are additionally unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in the prosecution before the USPTO violated a duty of candor and good faith in dealing with the USPTO as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. In the prosecution of the '850 Patent and the '822 Patent, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO concealed a "new matter" violation and pursued invalid claims.¹

c. The claims as originally filed in the '635 Patent Application (the parent of the '850 Patent and the '822 Patent) contained the following language:

1.- An antenna in which at least one of its parts is shaped as a space-filling curve (hereafter SFC), being said SFC defined as a curve composed by at least ten connected ***straight*** segments . . .

(Claim 1 of United States Patent Application No. 10/182,635, filed July 19, 2002, emphasis added). The term "segments" was modified by the term "straight."

¹ 35 U.S.C. § 132 prescribes in part that "No amendment shall introduce new matter into the disclosure of the invention."

d. The '635 Patent Application was abandoned and United States Patent Application No. 11/110,052 (hereinafter the "'052 Application" which issued as the '850 Patent) purportedly claims priority to the '635 Patent Application.

e. Upon information and belief, prosecution strategies were shared among those individuals (including individuals from the Spanish law firm of Herrero & Asociados) who were involved with the prosecution of EP Application No. 00909089.5, a foreign counterpart to the '052 Application, and one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO at least because amendments made in EP Application No. 00909089.5 were similar to amendments later made in the '052 Application as described below.

f. On December 16, 2004, in EP Application No. 00909089.5, in preparation for oral proceedings, Herrero & Asociados presented the following amendments to the European Patent Office:

1.- An antenna ~~having in which~~ at least one ~~of its~~ parts ~~is~~ shaped as a space-filling curve (25) ~~—(hereafter SFC), being said SFC defined as a curve composed by at least ten connected straight~~ <***the feature "straight" is optional, cf. the definition of the space-filling curve on page 4, cf. line 12; we have thus chosen to transfer this optional feature to new dependent claim 2***>—segments, wherein:

g. The claim amendments for EP Application No. 00909089.5 in the preceding subparagraph attempted to delete the term "straight" before the term "segment."

h. In January of 2005, in EP Application No. 00909089.5, Fractus representatives, including inventor and employee, Carles Puente Baliarda, attended the oral proceedings before the examining division of the EPO.

i. As indicated in an annex to the minutes of the January 2005 oral proceedings, the EPO disallowed the removal of the word “straight” before “segment” at least as follows:

2. Art. 84 and 123(2) EPC objections against Claim 1

The deletion of the word "**straight**" before "segments" and the transferring of this feature to dependent Claim 2 is not admissible because the space-filling curve of the original Claim 1 is "composed by at least ten connected **straight** segments" which is part of the broadest claim as originally filed. Though the corresponding definition on original page 4, lines 11-20 comprises not this word "straight" in this context, **its deletion is not admissible** because both definitions have very different wordings (Art. 123 (2) EPC) !

(European Patent Application No. 00909089.5, January 28, 2005).

j. Because of the rejection in the preceding subparagraph for EP Application No. 00909089.5, Fractus representatives ultimately reintroduced the term “straight” before “segments” in the claims that were ultimately granted in EP Application No. 00909089.5.

k. The rejection in the preceding subparagraphs by the EPO as indicated in the annex to the January 2005 oral proceedings is believed to be similar to a “new matter” rejection in the United States Patent and Trademark Office.

l. As referenced in other incorporated subparagraphs, amendments made in European Patent Application No. 00909089.5 were similar to those made in applications of the Space-Filling Miniature Patent Family. Upon information and belief, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was attempting to make amendments in the ‘052 Application that were similar to those made in European Patent Application No. 00909089.5.

m. As an example of the preceding, approximately three months after the EPO disallowed removal of the term “straight” before the term “segment” in EP Application No.

00909089.5, the exact same claim amendment (removal of the term “straight” before the term “segment”) was attempted in the United States for the ‘052 Application.

n. On April 20, 2005, in the ‘052 Application, all the claims (Claims 1-16) were cancelled and a new set of claims (Claims 17-106) were presented that removed the word “straight” before the term “segment” (this amendment hereinafter referred to as the “April 20, 2005 Amendment.”).

o. The following is the Claim 1 before the April 20, 2005 Amendment (emphasis added):

1.- An antenna in which at least one of its parts is shaped as a space-filling curve (hereafter SFC), being said SFC defined as a curve composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length and they are spatially arranged in such a way that none of said adjacent and connected segments form another longer straight segment, wherein non of said segments intersect to each other except optionally at the tips of the curve, wherein the corners formed by each pair of said adjacent segments can be optionally rounded or smoothed otherwise, and wherein the curve can be optionally periodic along a fixed straight direction of space if and only if the period is defined by a non-periodic curve composed by at least ten connected segments and no pair of said adjacent and connected segments define a straight longer segment. Optionally the antenna includes a network between the radiating element and the input connector or transmission line, being said network either a matching network, an impedance transformer network, a balun network, a filter network, a diplexer network or a duplexer network.

p. The following is Claim 17 after the April 20, 2005 Amendment (emphasis added):

17. An antenna in which at least one portion of the antenna is shaped as a space-filling curve (hereafter SFC), the SFC including at least ten connected segments, wherein said segments are each smaller than a tenth of an operating free-space wavelength of the antenna and the segments are spatially arranged such that no two adjacent and connected segments form another longer straight segment, wherein none of said segments intersect with another segment other than to form a closed loop, wherein each pair of adjacent segments forms a corner, and wherein any portion of the curve that is periodic along a fixed straight direction of space is defined by a non-periodic curve that includes at least ten connected segments in which no two adjacent and connected segments define a straight longer segment, wherein said SFC has a box-counting dimension larger than one, wherein the box-counting dimension is calculated as the slope of a straight portion of a log-log graph, wherein the straight portion is a straight segment over at least an octave of scales on the horizontal axes of the log-log graph.

q. Unlike EP Application No. 00909089.5, in the April 20, 2005 Amendment, there was neither a markup of the claims showing removal of the term “straight” nor was there an identification where alleged support for removal of the term “straight” before the term “segment” might lie in the specification.

r. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO including, but not limited to, Brian Walker of Howison & Arnott was involved with the preparation of the April 20, 2005 Amendment for the USPTO.

s. In making the April 20, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew or should have known of the lack of support in the specification for a segment that is not “straight.”

t. In making the April 20, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or

others owing a duty of candor and good faith in dealing with the USPTO knew or should have known of the January 28, 2005 EPO communication.

u. Because Carles Puente Baliarda was present at the January 2005 oral proceedings, he understood the lack of support in the specification for a “segment” that is other than straight.

v. Because Carles Puente Baliarda was present at the January 2005 oral proceedings, he understood the EPO’s rejection of the attempted removal of the term “straight” before “segment” in European Patent Application No. 00909089.5.

w. The January 28, 2005 communication for EP Application No. 00909089.5 was never cited in the prosecution of the ‘052 Application, which led to the ‘850 Patent, or the ‘250 Application, which led to the ‘822 Patent.

x. No EPO communications from foreign counterparts to the Space Filling Miniature Patent Family were cited in any of the applications of the Space Filling Miniature Patent Family other than a Feb. 7, 2003 “Examination Report.”

y. The withholding of EPO communications in applications leading to the ‘850 Patent and the ‘822 Patent in conjunction with a failure to cite alleged support for claim amendments was an attempt by one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO to conceal “new matter” introduced into each respective application.

z. As previously held by the Federal Circuit, “to satisfy the written description requirement for a claimed genus, a specification must describe the claimed invention in such a way that a person of skill in the art would understand that the genus that is being

claimed has been invented, not just a species of the genus.”² The April 20, 2005 Amendment should not have been allowed because there is no written description or enablement for the broader genus of a “segment” that is not “straight.” In particular, the specification of the Space Filling Miniature Patent Family provides no description of “segments” being other than “straight.”

aa. The April 20, 2005 Amendment was presented some five years after the filing of the original PCT Application to which the ‘850 Patent purportedly claims priority.

bb. By concealing the new matter violation in the ‘052 Application, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to avoid a rejection in view of Fractus’ own published PCT application.

cc. Because the PCT application to which the ‘850 Patent purportedly claims priority was published on November 1, 2002 — more than a year before the April 20, 2005 Amendment, the November 1, 2002 Publication of the PCT application qualifies as a 35 USC § 102(b) prior art reference against the claims introduced with the new matter in the April 20, 2005 Amendment. Thus, at a minimum, the disclosure of the “straight segments” in the publication of the PCT Application to which the ‘850 Patent purportedly claims priority could have been used in an obviousness rejection of the claims introduced with the “new matter” in the April 20, 2005 Amendment in applications leading to the ‘850 Patent.

dd. By concealing the new matter violation in the ‘052 Application, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling

² *Carnegie Mellon University v. Hoffmann-La Roche*, 541 F. 3d 1115, 1124 (Fed. Cir. 2008). *See also, Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998) (claims to a sectional sofa comprising, inter alia, a console and a control means were held invalid for failing to satisfy the written description requirement where the claims were broadened by removing the location of the control means.).

Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO also sought to avoid a 35 U.S.C. § 112 “new matter” invalidity rejection.

ee. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO recognized that citing the EPO communications would show the Examiner of the ‘052 Applications that the claim amendment presented new matter, allowing the examiner to set forth a rejection under 35 U.S.C. § 112.

ff. For the reasons presented in the preceding subparagraphs, the withholding of the EPO communications in applications leading to the ‘850 Patent and failure to notify the USPTO of alleged support in the specification for the April 20, 2005 Amendment was material.

gg. In making the April 20, 2005 Amendment in the application leading to the ‘850 Patent, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by withholding the January 28, 2005 communication (and other similar communications) from European Patent Application No. 00909089.5.

hh. In making the April 20, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by failing to inform the USPTO of alleged support in the specification for the April 20, 2005 Amendment.

ii. Rather than be forthright with the USPTO and provide information that there may be an issue with the April 20, 2005 Amendment, one or more of the inventors in the

Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knowingly concealed the “new matter” and knowingly pursued invalid claims.

jj. Less than three months after the April 20, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO again sought claims not supported by the specification in United States Application No. 11/179,250 (hereinafter the ‘250 Application, which issued as the ‘822 Patent), which is a purported continuation of the ‘052 Application.

kk. On July 12, 2005, in the ‘250 Application, all the claims (Claims 1-16) originally present in the ‘635 Application were cancelled and a new set of claims (Claims 17-73) was added with the terms “bend” and “segments” (without “straight”) provided in lieu of the word “straight segment” (this amendment referred to hereinafter as the July 12, 2005 Amendment).

ll. The following is Claim 1 before the July 12, 2005 Amendment (emphasis added):

1.- An antenna in which at least one of its parts is shaped as a space-filling curve (hereafter SFC), being said SFC defined as a curve composed by at least ten connected straight segments, wherein said segments are smaller than a tenth of the operating free-space wave length and they are spatially arranged in such a way that none of said adjacent and connected segments form another longer straight segment, wherein non of said segments intersect to each other except optionally at the tips of the curve, wherein the corners formed by each pair of said adjacent segments can be optionally rounded or smoothed otherwise, and wherein the curve can be optionally periodic along a fixed straight direction of space if and only if the period is defined by a non-periodic curve composed by at least ten connected segments and no pair of said adjacent and connected segments define a straight longer segment. Optionally the antenna includes a network between the radiating element and the input connector or transmission line, being said network either a matching network, an impedance transformer network, a balun network, a filter network, a diplexer network or a duplexer network.

mm. The following is Claim 48 after the July 12, 2005 Amendment (emphasis added)

48. An antenna, comprising:

a conductive radiative element at least a portion of which is shaped as a substantially non-periodic curve formed by a plurality of individual segments connected end-to-end with one another so that each segment forms a bend with respect to each adjacent segment,

said conductive radiative element having a size that can be fitted into a radian sphere having a radius equal to an operating wavelength of the antenna divided by 2π ,

each segment of said curve being shorter than one-tenth of a free-space operating wavelength of the antenna, and

said curve being shaped so that the arrangements of its segments are not self-similar with respect to the entire curve.

nn. The term "bends" is new matter in the '250 Application because it is not supported by the original specification.

oo. Similar to the April 20, 2005 Amendment, in the July 12, 2005 Amendment, there was neither a markup of the claims showing removal of the term “straight” or addition of “adjacent segments” nor was there an identification where alleged support for removal of the term “straight” before the term “segment” or addition of “adjacent segments” might lie in the specification.

pp. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO including, but not limited to, Brian Walker of Howison & Arnott was involved with the preparation of the July 12, 2005 Amendment for the USPTO.

qq. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew or should have known of the lack of support in the specification for a segment that is not “straight” and lack of support in the specification for the term “adjacent bends.”

rr. In making the July 12, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knew or should have known of the January 28, 2005 EPO communication.

ss. The July 12, 2005 Amendment should not have been allowed because there is no written description or enablement for the broader genus of a “segment” that is not “straight.” In particular, the specification of the Space Filling Miniature Patent Family provides no description of “segments” being other than “straight.”

tt. The July 12, 2005 Amendment was presented some five years after the filing of the original PCT Application to which the '822 Patent purportedly claims priority.

uu. By concealing the new matter violation in the '250 Application, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to avoid a rejection in view of Fractus' own published PCT Application.

vv. Because the PCT Application to which the '822 Patent purportedly claims priority was published on November 1, 2002 — more than a year before the July 12, 2005 Amendment, the November 1, 2002 Publication of the PCT Application qualifies as a 35 USC § 102(b) prior art reference against the claims introduced with the new matter in the July 12, 2005 Amendment. Thus, at a minimum, the disclosure of the “straight segments” in the publication of the PCT Application to which the '822 Patent purportedly claims priority could have been used in an obviousness rejection of the claims introduced with the new matter in the April 20, 2005 Amendment.

ww. By concealing the new matter violation in the '250 Application, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to avoid a 35 U.S.C. § 112 “new matter” invalidity rejection.

xx. One or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO recognized that citing the EPO communications would show the Examiner of the '250 Application that the claim amendment presented “new matter,” allowing the examiner to set forth a rejection under 35 U.S.C. § 112.

yy. For the reasons presented in the preceding subparagraphs, the withholding of the EPO communications in applications leading to the ‘822 Patent and failure to notify the USPTO of alleged support in the specification for the July 12, 2005 Amendment was material.

zz. In making the July 12, 2005 Amendment in the application leading to the ‘822 Patent, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by withholding the January 28, 2005 communication (and other similar communications) from European Patent Application No. 00909089.5 in applications leading to the ‘850 Patent.

aaa. In making the July 12, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO violated their duty of candor by failing to inform the USPTO of alleged support in the specification for the July 12, 2005 Amendment.

bbb. Rather than be forthright with the USPTO and provide information that there may be an issue with the July 12, 2005 Amendment, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO knowingly concealed the “new matter” and knowingly pursued invalid claims.

ccc. Fractus’ European counsel, Herrero & Asociados, again attempted to remove the word “straight” from before the word “segment” in a divisional application of European Patent Application No. 00909089, published as EP1592083.

ddd. In the application for EP1592083, the European Patent Office indicated on multiple occasions that removal of “straight” before “segment” went beyond the scope of the original disclosure. Examples include the following (hereinafter, the EP1592083 Notifications):

- Notification on 8-2-2006 that they were missing the word “straight” in the claims.
- Notification on 7-31-2007 that they were missing the word “straight” in the claims.
- “Ground for Decision” Notification of a three-member European panel on 11-6-2007 of reasons why the application should not be allowed, indicating:

10.1 The Examining Division finds that the following amended passages of Claim 1 according to the main request and of Claim 1 of the first auxiliary request do not fulfil the requirements of Article 123 (2) EPC:

- (1) On page 19, line 11 there is missing the word **"straight"** before the word "segment" (with respect to line 4 of the Claim 1 filed with letter of 14.6.05) which makes the further term "a straight longer segment" in line 17 unclear (Art. 84 EPC) and which is in contradiction to the description of only **"straight"** segments (see e.g. page 4, lines 12-13) and as shown in all figures which is **now only claimed in dependent Claim 3.**

eee. After having received the EP1592083 Notifications, Fractus' European counsel, Herrero & Asociados, filed a Notice of Appeal on 12-19-2007 and Grounds for Appeal on 3-11-2008. One of the Grounds for Appeal was the “straight segment” issue.

fff. Upon information and belief, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was notified of the EP1592083 Notifications because of ongoing prosecution strategy communications between Herrero & Asociados and one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO.

ggg. Because the first of the three EP1592083 Notifications occurred before issuance of either the '850 Patent or the '822 Patent, one or more of the inventors in the Space

Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was given an opportunity to notify the USPTO of the communication in EP1592083; however, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO chose not to act upon that opportunity.

hhh. The second and third EP1592083 Notifications show that the EPO has continually and consistently maintained the position that removal of “straight” before segment is new matter.

iii. Rather than be forthright with the USPTO and provide the USPTO the EPO communications referenced in the preceding subparagraphs, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO continued to withhold EPO communication in EP1592083 from the applications leading to the ‘850 Patent and the ‘822 Patent, thereby again violating a duty of candor and good faith in dealing with the USPTO.

jjj. By intentionally withholding communications from European Patent Application No. 00909089.5 and EP1592083 from applications in the Space Filling Miniature Patent Family, one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to continue to conceal the new matter violations in at least the April 20, 2005 Amendment and July 12, 2005 Amendment referenced above.

kkk. Given the above facts, an intent to deceive by one or more of the inventors in the Space Filling Inventor Group, individuals in the Space Filling Prosecution Group, and/or

others owing a duty of candor and good faith in dealing with the USPTO can be inferred from at least the following acts:

- After specifically being notified from European Prosecution that a proposed amendment introduces new matter, choosing to move forward with the same amendment in the United States;
- Withholding from the USPTO the notice received from the European Prosecution that the proposed amendment introduces new matter;
- Failing to cite any alleged specification support for the proposed amendment with new matter;
- Cancelling and introducing new claims as opposed to marking-up current claims to obscure the new matter added to the application.
- Withholding from the USPTO additional reminder notices received from the European Prosecution that the proposed amendment introduces new matter.

COUNT TWENTY-NINE:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,411,556 AND 7,312,762

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Withheld The Puente Dissertation in the Prosecution of the '556 Patent and the '762 Patent.

197. The '556 Patent and the '762 Patent are unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly withheld with an intent to deceive highly material information received in a related Fractus application as follows:

a. HTC repeats the allegations of Paragraphs 183 to 198 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. Carles Puente Baliarda and Alfonso Sanz (hereinafter, the "Multiband Monopole Inventor Group") were listed as inventors on the '556 Patent.

c. Each inventor in the Multiband Monopole Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO.

d. Additionally, upon information and belief, one or more of the inventors in the Multiband Monopole Inventor Group were substantively involved in the prosecution of the application leading to the '556 Patent.

e. Carles Puente Baliarda and Jordi Soler Castany (hereinafter, the "Loaded Antenna Inventor Group") were listed as inventors on the '762 Patent.

f. Each inventor in the Loaded Antenna Inventor Group had a duty of candor and good faith in dealing with the USPTO, which included a duty to disclose material information to the USPTO.

g. Additionally, upon information and belief, one or more of the inventors in the Loaded Antenna Inventor Group were substantively involved in the prosecution of the application leading to the '762 Patent.

h. At different points in time, at least Joseph Sauer of Jones Day; Stanley Moore of Jenkins & Gilchrist (and later Winstead P.C.), and Shoaib Mithani of Jenkins & Gilchrist (and later Winstead P.C.) prosecuted the application leading to the '556 patent (these individuals collectively referred to as the "Multiband Monopole Prosecution Group").

i. The individuals in the Multiband Monopole Prosecution Group owed a duty of candor and good faith in dealing with the USPTO in the prosecution of applications in the Multiband Monopole Prosecution Group.

j. At different points in time, at least Joseph Sauer of Jones Day, David Mairona of Jones Day, Stanley Moore of Jenkins & Gilchrist (and later Winstead P.C.), Ross

Robinson of Jenkins & Gilchrist (and later Winstead P.C.), and Shoaib Mithani of Jenkins & Gilchrist (and later Winstead P.C.) prosecuted the application leading to the '762 patent (these individuals collectively referred to as the "Loaded Antenna Prosecution Group").

k. The individuals in the Loaded Antenna Prosecution Group owed a duty of candor and good faith in dealing with the USPTO in the prosecution of applications in the Loaded Antenna Prosecution Group.

l. Upon information and belief, one or more of inventors in the Multiband Monopole Inventor Group, individuals in the Multiband Monopole Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was aware of the Puente Dissertation.

m. Upon information and belief, one or more of the inventors in the Loaded Antenna Inventor Group, individuals in the Loaded Antenna Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO was aware of the Puente Dissertation.

n. Carles Puente Baliarda was aware of the Puente Dissertation because he was listed as the author of the paper.

o. Individuals at Jenkins & Gilchrist were aware of the Puente Dissertation because Michael Maddux of Jenkins & Gilchrist cited the Puente Dissertation in another Fractus application leading to United States Patent No. 7,245,196 on October 20, 2006.

p. Shoaib Mithani of Jenkins & Gilchrist (and later Winstead P.C.) of the Multiband Monopole Prosecution Group and the Loaded Antenna Prosecution Group also prosecuted the Fractus application leading to United States Patent No. 7,245,196 and should have been aware of the Puente Dissertation.

q. Because the individuals at Jenkins & Gilchrist were aware of the Puente Dissertation on October 20, 2006, which is more than a year before the issuance of the '762 Patent (on December 25, 2007) and almost two years before issuance of the '556 Patent (on August 12, 2008), individuals at Jenkins & Gilchrist (and later Winstead P.C.), had an opportunity to cite the Puente Dissertation in the applications leading to the '556 Patent and the '762 Patent.

r. Because the Puente Dissertation was published in May of 1997 and because the application leading to the '762 Patent was filed in the U.S. on April 13, 2004 before issuing on December 25, 2007, one or more of the inventors in the Loaded Antenna Inventor Group, individuals in the Loaded Antenna Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO had more than a four year window of opportunity to provide the Puente Dissertation to the USPTO in the application leading to the '762 Patent. However, one or more of the inventors in the Loaded Antenna Inventor Group, individuals in the Loaded Antenna Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO did not act on that opportunity and withheld the Puente Dissertation.

s. The Puente Dissertation was not cited in the prosecution of the application leading to the '762 Patent.

t. Because the Puente Dissertation was published in May of 1997 and because the application leading to the '556 Patent was filed in the U.S. on May 29, 2005 before issuing on August 12, 2008, one or more of the inventors in the Multiband Monopole Inventor Group, individuals in the Multiband Monopole Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO had over a four year window of opportunity to

provide the Puente Dissertation to the USPTO in the application leading to the '556 Patent. However, one or more of the inventors in the Multiband Monopole Inventor Group, individuals in the Multiband Monopole Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO did not act on that opportunity and withheld the Puente Dissertation.

u. The Puente Dissertation was not cited in the prosecution of the application leading to the '556 Patent.

v. The Puente Dissertation is material to the patentability of the claims in the '556 Patent because it anticipates or renders obvious relevant claims of the '556 Patent.

w. The Puente Dissertation is material to the patentability of the claims in the '762 Patent because it anticipates or renders obvious relevant claims of the '762 Patent.

x. One or more of inventors listed on the '556 Patent, individuals in the Multiband Monopole Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO withheld the Puente Dissertation from the prosecution of the application leading to the '556 Patent.

y. By intentionally withholding the Puente Dissertation from the application leading to the '556 Patent, one or more of inventors listed on the '556 Patent, individuals in the Multiband Monopole Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to obtain allowance of claims that would not otherwise be allowable over the Puente Dissertation.

z. One or more of inventors listed on the '762 Patent, individuals in the Loaded Antenna Prosecution Group, and/or others owing a duty of candor and good faith in

dealing with the USPTO withheld the Puente Dissertation from the prosecution of the application leading to the '762 Patent.

aa. The above referenced facts demonstrate that one or more individuals owing a duty of candor and good faith to the USPTO knew of highly material information. Intent to deceive can be inferred from these facts because those individuals knew or should have known of the high materiality of the withheld information and no reasonable explanation has been provided for their withholding of the information.

bb. By intentionally withholding the Puente Dissertation from the application leading to the '762 Patent, one or more of inventors listed on the '762 Patent, individuals in the Loaded Antenna Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO sought to obtain allowance of claims that would not otherwise be allowable over the Puente Dissertation.

COUNT THIRTY:
DECLARATORY RELIEF REGARDING UNENFORCEABILITY DUE TO
INEQUITABLE CONDUCT OF U.S. PATENT NOS. 7,015,868,
7,123,208, 7,394,432, 7,397,431 AND 7,528,782

Those Having a Duty of Candor and Good Faith in Dealing with the USPTO Improperly Falsified Inventorship To Exclude An Inventor in the Prosecution of the '868 Patent, the '208 Patent, the '431 Patent, the '432 patent, and the '782 Patent.

198. The Multilevel Antenna Patent Family is additionally unenforceable because Applicants and/or their patent attorneys and/or others substantively involved in prosecution before the USPTO knowingly falsified inventorship to exclude a true inventor, Professor Jordi Romeu Robert, from the Multilevel Antenna Patent Family, with an intent to deceive the USPTO as follows:

a. HTC repeats the allegations of Paragraphs 183 to 197 and all their subparagraphs of the Amended Answer and Counterclaim to Plaintiff's Second Amended Complaint as set forth herein and incorporates them herein by reference.

b. The Multilevel Antenna Patent Family purportedly claims priority to PCT Application No. ES99/00296, filed on September 20, 1999. At the time the application was filed, all of the named inventors were either professors or doctoral students at Universitat Politecnica de Catalunya ("UPC"), a technical university in Barcelona, Spain. The named inventors at the time of filing included Professor Jordi Romeu Robert, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany.

c. On information and belief, UPC was heavily involved in antenna research, and had previously filed patent applications disclosing subject matter similar to that in Fractus PCT Application No. ES99/00296.

d. Professor Romeu had co-authored more than 20 papers with Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and/or Jordi Soler Castany relating to antennas. Professor Romeu is also named as a joint inventor with Carles Puente Baliarda on at least Spanish Patent ES2112163, entitled "Antenas Fractales O Multifractales" (translated, "Fractal and Multifractal Antennas"), the application for which was filed on May 19, 1995 and which issued on March 16, 1998.

e. The abstract of Spanish Patent ES2112163 refers at least to an antenna consisting of a conductor or superconductor material characterized by each of its parts having the same and/or similar form to the overall structure of the object, but at a different level of scale.

f. Figs. 2-4 of Spanish Patent ES2112163 are examples of multilevel antennas, as those are defined in the Multilevel Antenna Patent Family.

g. The subject matter of Spanish Patent ES2112163 is similar to the subject matter of the Multilevel Antenna Patent Family.

h. Additionally, as evidenced in the prosecution of applications in the Multilevel Antenna Patent Family, ES2112163 discloses the majority of the claim limitations in certain claims of applications in the Multilevel Antenna Patent Family. As an example, as discussed in other incorporated subparagraphs, the USPTO asserted and Fractus did not traverse the USPTO's assertions that ES2112163 discloses the below highlighted limitations of Claim 1 of the '868 Patent:

1. A multi-band antenna including at least one multilevel structure wherein the multilevel structure comprises a set of polygonal or polyhedral elements having the same number of sides or faces, wherein each of said elements is electromagnetically coupled to at least one other of said elements either directly through at least one point of contact or through a small separation providing coupling, wherein for at least 75% of said polygonal or polyhedral elements, the region or area of contact between said polygonal or polyhedral elements is less than 50% of the perimeter or area of said elements, and wherein not all the polygonal or polyhedral elements have the same size and the perimeter of the multilevel structure has a different number of sides than the polygons that compose the multilevel structure.

i. (See e.g., 5-26-2004 Office Action Response for the '568 Application). Rather, as indicated in the incorporated sub-paragraph, one or more of the inventors in the Fractus Multilevel Inventor Group, individuals in the Multilevel Prosecution Group, and/or others owing a duty of candor and good faith in dealing with the USPTO including, but not limited to, David Maiorana of Jones Day argued that the new claims were novel over ES2112163 Application because

The '163 application also does not teach or suggest the claimed invention because *the elements disclosed in the antennas of the '163 application are all the same size* (e.g., the dark triangles in Figs. 3 and 9 of the /163 application). The white

areas shown in Figures 3 and 9 of the '163 application are the empty spaces between the black triangle-shaped element.

(5-26-2004 Office Action Response for the '568 Application at 7, Emphasis added).

j. Professor Romeu is also named as a joint inventor with Carles Puente Baliarda, Carmen Borja Borau and Jaume Anguera Pros on at least Spanish Patent ES2142280, entitled "Unas antenas multitriangulares duales para telefonía celular GSM y DCS" (translated, "Dual multi-triangular antennas for GSM and DCS cellular telephony"), the application for which was filed on May 6, 1998 and which issued on November 16, 2000.

k. The subject matter of Spanish Patent ES2142280 is similar to the subject matter of the Multilevel Antenna Patent Family.

l. Additionally, ES2142280 discloses the majority of the claim limitations in certain claims of applications in the Multilevel Antenna Patent Family. As an example, ES2112163 discloses the below highlighted limitations of Claim 1 of the '868 Patent:

1. A multi-band antenna including at least one multilevel structure wherein the multilevel structure comprises a set of polygonal or polyhedral elements having the same number of sides or faces, wherein each of said elements is electromagnetically coupled to at least one other of said elements either directly through at least one point of contact or through a small separation providing coupling, wherein for at least 75% of said polygonal or polyhedral elements, the region or area of contact between said polygonal or polyhedral elements is less than 50% of the perimeter or area of said elements, and wherein not all the polygonal or polyhedral elements have the same size and the perimeter of the multilevel structure has a different number of sides than the polygons that compose the multilevel structure.

m. Furthermore, Professor Romeu is also named as a joint inventor, along with Carles Puente Baliarda in PCT Application No. ES99/00343.

n. On information and belief, Fractus was founded in 1999 by Carles Puente Baliarda and others (collectively, the “Fractus Founders”). Further on information and belief, Professor Romeu was one of the Fractus Founders.

o. On information and belief, one of Fractus’s goals was to commercialize fractal antennas (such as those described in the Multilevel Antenna Patent Family and Space Filling Miniature Patent Family), based on its belief that “the space-filling and multi-level properties of Fractus’s technology enable Fractus to achieve increased antenna performance and/or reduced antenna size with optimum multi-band functionality.” (Fractus Website, <http://www.fractus.com/main/fractus/corporate/>).

p. On information and belief, in or around 1999, UPC purportedly transferred patent rights to Fractus, including patents relating to fractal antennas.

q. On information and belief, Professor Romeu maintained an interest in continuing his research outside of his employ at Fractus. In September of 2000, Professor Romeu started FractalComs, a consortium of organizations (including UPC and other universities in Spain, Italy, and Switzerland) interested in researching the use of fractal antennas in telecommunications.

r. On information and belief, Professor Romeu left Fractus some time in or around 2000-2001.

s. On information and belief, relations between Professor Romeu, FractalComs and UPC, on the one hand, and Fractus, on the other, thereafter became strained. In or around 2001, an employee or representative of Fractus sent a letter to Professor Romeu and/or others at FractalComs informing FractalComs that Fractus purportedly owned intellectual property rights in fractal antennas, along with the registered trademark for “Fractal Antennas.”

t. In 2003, after Professor Romeu had left Fractus, he published a paper with two co-authors who were also students and/or professors at UPC, entitled “Are Space-Filling Curves Efficient Small Antennas?” (IEEE Antennas and Wireless Propagation Letters, Vol. 2, 2003) (the “Romeu Paper”). The paper concluded that the behavior of space-filling curves as antennas “is not exceptional when compared with other intuitively-generated antennas.” The research that formed the basis for the Romeu Paper (the “Romeu Paper Research”), which began at least as early as 2002, further concluded that “space-filling prefractal antennas are not suitable to design efficient miniature antennas,” that “fractal dimension seems not to play a role in the behavior of the antennas as experiences with prefractals with the same fractal dimension show,” and finally that “other intuitively generated Euclidean configurations perform better than prefractal structures with the same size-reduction ratios [], and even admit more degrees of freedom for the antenna designer.”

u. Ultimately, the Romeu Paper concluded that the very sorts of antenna geometries that Fractus claims in another patent family, which relates to space filling curves, and which claims to be superior in their designs, are actually no better than any other antenna geometries that a typical antenna designer might choose.

v. On information and belief, in or around early 2002, at the time that Professor Romeu was conducting the Romeu Paper Research, Fractus made a decision to remove Professor Romeu as an inventor in the Multilevel Antenna Patent Family.

w. For example, in an April 10, 2002 letter, Francisco Carpintero Lopez of Herrero & Asociados (Fractus’s foreign patent attorneys) sent a letter to the European Patent Office seeking entry into the national phase in Europe, and therein sought to remove Professor

Romeu as an inventor in PCT Application No. ES99/00296 and its corresponding national stage equivalents:

Please be informed that, by an involuntary error, Mr. Jordi ROMEU ROBERT was erroneously designated as inventor. The International Bureau (WIPO) was notified accordingly and we are enclosing herewith the official notification (Form PCT/IB/306) that we have received from the WIPO where you can see that said change has been registered.

x. On information and belief, Professor Romeu should properly have remained a named inventor on the applications in the Multilevel Antenna Patent Family.

y. In particular, as referenced above, given that the two Spanish Patents (ES2112163 and ES2142280) for which Professor Romeu is listed as an inventor for disclosed the overwhelming majority of the claim limitations of certain claims of applications in the Multilevel Antenna Patent Family (e.g., as shown in the preceding subparagraphs) and given that Professor Romeu studied and wrote multiple papers on this topic as evidenced by Fractus's production discussed below, it would be difficult for an ordinary observer of these factual scenarios to allege that Professor Romeu was not an inventor.

z. On or around June 7, 2002, in Application No. 10/102,568 of the Multilevel Antenna Patent Family, Harris A. Wolin (Fractus's designated patent attorney) filed in the USPTO (1) copies of documents "deleting Mr. Jordi Romeu Robert as an inventor," and (2) the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter, and which declaration included a place for Professor Romeu's signature (which was left blank):

Full name of sole or first inventor: PUENTE BALIARDA CARLES
 Inventor's Signature: [Signature] Date: 9 April 2002
 Residence: SPAIN Citizenship: SPANISH
 Post Office Address: Alcalde Barnils s/n Ed. TESTA mdd. C3ª Pça Emp. San Joan Despí 08190 SANT CUGAT DEL VALLES (Barcelona)

Full name of second joint inventor, if any: ROMEU ROBERT JORDI
 Second Inventor's Signature: [Signature] Date: 9 April 2002
 Residence: SPAIN Citizenship: SPANISH
 Post Office Address: CERER MANILA 47 08034 (BARCELONA)

Full name of third joint inventor, if any: BORJA BORAU CARMEN
 Third Inventor's Signature: [Signature] Date: 9 April 2002
 Residence: SPAIN Citizenship: SPANISH
 Post Office Address: TVRA DE DALT 67 08024 (BARCELONA)

Full name of fourth joint inventor, if any: ANGUERA PROS JAUME
 Fourth Inventor's Signature: [Signature] Date: 9 April 2002
 Residence: SPAIN Citizenship: SPANISH
 Post Office Address: PSSG BLASCO IBANEZ 15 12500 (VINAROS)

Full name of fifth joint inventor, if any: SOLER CASTANY JORDI
 Fifth Inventor's Signature: [Signature] Date: 9 April 2002
 Residence: SPAIN Citizenship: SPANISH
 Post Office Address: FRAY LUIS DE LEON 21 08302 (MATARO)

aa. However, one or more of Harris A. Wolin, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany knew that Professor Romeu was also a true inventor of the claimed subject matter in Application No. 10/102,568, and thus knew that the declaration of inventorship was false.

bb. Fractus's own documents demonstrate that Professor Romeu was a true inventor of those claimed inventions and was improperly removed. These include the documents produced by Fractus in this action and identified pursuant to P.R. 3-2(b) as purportedly supporting the conception, reduction to practice, design, and development of the claimed inventions, the majority of which identify Professor Romeu as a contributor. For example, a document produced by Fractus in this case bearing the Bates numbers FRAC-00000624-659, which apparently relates to the inventions in the Multilevel Antenna Patent Family, identifies Professor Romeu as a contributor. Additionally, a document produced by Fractus bearing the Bates numbers FRAC-035-00002924-938 is a presentation identifying and/or given in part by Professor Romeu relating to purportedly "Novel Multilevel" antenna configurations, and which

references in a footnote PCT Application No. ES99/00296 and identifies Professor Romeu as an inventor. At a minimum, the multilevel references in such documents are germane to the same “multilevel” features contained in the claims of the Multilevel Antenna Patent Family.

cc. On or around December 8, 2004, in the application that issued as the ‘868 Patent of the Multilevel Antenna Patent Family, Fractus’s patent attorney Brian Walker of Howison & Arnott, LLP, or others having a duty of candor and good faith to the USPTO, likewise filed in the USPTO the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter.

dd. However, one or more of Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO knew that Professor Romeu was also a true inventor of the claimed subject matter in the ‘868 Patent, and thus knew that the declaration of inventorship was false.

ee. On or around March 8, 2005, in the application that issued as the ‘208 Patent of the Multilevel Antenna Patent Family, Fractus’s patent attorney Brian Walker of Howison & Arnott, LLP, or others having a duty of candor and good faith to the USPTO, likewise filed in the USPTO the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter.

ff. However, one or more of Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO knew that Professor Romeu was also a true inventor of the claimed subject matter in the ‘208 Patent, and thus knew that the declaration of inventorship was false.

gg. On or around July 12, 2005, in the application that issued as the '431 Patent of the Multilevel Antenna Patent Family, Fractus's patent attorney Brian Walker of Howison & Arnott, LLP, or others having a duty of candor and good faith to the USPTO, likewise filed in the USPTO the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter.

hh. However, one or more of Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO knew that Professor Romeu was also a true inventor of the claimed subject matter in the '431 Patent, and thus knew that the declaration of inventorship was false.

ii. On or around October 17, 2006, in the application that issued as the '432 Patent of the Multilevel Antenna Patent Family, Fractus's patent attorney Brian Walker of Howison & Arnott, LLP, or others having a duty of candor and good faith to the USPTO, likewise filed in the USPTO the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter.

jj. However, one or more of Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO knew that Professor Romeu was also a true inventor of the claimed subject matter in the '432 Patent, and thus knew that the declaration of inventorship was false.

kk. On or around July 20, 2007, in the application that issued as the '782 Patent of the Multilevel Antenna Patent Family, Fractus's patent attorney Brian Walker of Howison & Arnott, LLP, or others having a duty of candor and good faith to the USPTO,

likewise filed in the USPTO the declaration of inventors Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, and Jordi Soler Castany acknowledging their duty of candor and attesting to the fact that they were the joint (and only) inventors of the claimed subject matter.

ll. However, one or more of Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi Soler Castany and/or others having a duty of candor and good faith to the USPTO knew that Professor Romeu was also a true inventor of the claimed subject matter in the '782 Patent, and thus knew that the declaration of inventorship was false.

mm. On information and belief, one or more of Francisco Carpintero Lopez, Roland Brachmann of Jones Day, Joseph Sauer of Jones Day, David Maiorana of Jones Day, and/or the listed inventors on applications of the Multilevel Antenna Patent Family discussed and shared prosecution strategies amongst one another in the prosecution of Fractus patent applications, and made a decision to remove Professor Romeu as an inventor even though Professor Romeu contributed to the claimed inventions in the Multilevel Antenna Patent Family.

nn. On information and belief, the decision to remove Professor Romeu as an inventor was made: (1) in view of Professor Romeu's and/or FractalComs' and/or UPC's diverging interests from Fractus; (2) in view of patent ownership issues; and/or (3) to obscure the Romeu Paper Research and/or other material information in Professor Romeu's possession from the USPTO in several other Fractus patent applications relating to space-filling curves.

oo. On information and belief, Professor Romeu was omitted from the Multilevel Antenna Patent Family with deceptive intent, and the above-referenced declarations filed with the USPTO in the Multilevel Antenna Patent Family were executed and/or filed with an intent to deceive the USPTO. The intent to deceive the USPTO by one or more of Harris A. Wolin, Brian Walker, Carles Puente Baliarda, Carmen Borja Borau, Jaume Anguera Pros, Jordi

Soler Castany and/or others having a duty of candor is apparent based on the above-described facts and the other facts set forth herein.

pp. The omission of a true inventor with deceptive intent was a material omission because it involved the filing of false oaths/declarations.

qq. As a result, the patents in the Multilevel Antenna Patent Family are unenforceable due to inequitable conduct.

PRAYER FOR RELIEF

WHEREFORE, HTC America respectfully prays that this Court:

A. Dismiss with prejudice the Second Amended Complaint in its entirety and award Fractus nothing by its Complaint;

B. Adjudge, declare, and decree that HTC America has not infringed, and is not infringing, either literally or by equivalents, any valid claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent;

C. Adjudge, declare, and decree that HTC America has not induced, and is not inducing, infringement of any valid claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent;

D. Adjudge, declare, and decree that HTC America has not contributed to, and is not contributing to, the infringement of any valid claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent;

E. Adjudge, declare, and decree that HTC America has not willfully infringed, and is not willfully infringing, any valid claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, or the '782 Patent;

F. Adjudge, declare, and decree that one or more claims of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent are invalid;

G. Adjudge, declare, and decree that the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patents are unenforceable due to inequitable conduct;

H. Adjudge, declare, and decree that Fractus is not entitled to relief for alleged infringement of any valid claim of the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, or the '782 Patent where the alleged infringement is based upon an HTC America product;

I. Permanently enjoin Plaintiff, its successors, and assigns, and anyone acting in concert therewith or on its behalf, from attempting to enforce the '868 Patent, the '208 Patent, the '850 Patent, the '822 Patent, the '762 Patent, the '432 Patent, the '431 Patent, the '556 Patent, and the '782 Patent against HTC America or any parent, affiliate, or subsidiary of HTC America, or its respective officers, agents, employees, successors, and assigns; and,

J. Award to HTC America any relief to which HTC America is entitled.

Dated: February 24, 2010

Respectfully submitted,

By: /s/ Samir A. Bhavsar

David G. Wille

Texas Bar No. 00785250

Email: david.wille@bakerbotts.com

Samir A. Bhavsar

Texas Bar No. 00798065

Email: samir.bhavsar@bakerbotts.com

Ryan S. Loveless

Texas Bar No. 24036997

Email: ryan.loveless@bakerbotts.com

BAKER BOTTS, L.L.P.

2001 Ross Avenue

Dallas, Texas 75201

Telephone: (214) 953-6500

Facsimile: (214) 953-6503

ATTORNEYS FOR HTC AMERICA, INC.

**CERTIFICATE OF SERVICE
PURSUANT TO LOCAL RULE CV-5(D)**

I hereby certify that counsel of record who are deemed to have consented to electronic service are being served this 24th day of February, 2010, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by electronic mail and first class mail on this same date.

/s/ Samir A. Bhavsar

Samir A. Bhavsar